HCD-V818

SERVICE MANUAL

E Model

HCD-V818 is the tuner, deck, Video CD and amplifier section in MHC-V818.

This stereo system is equipped with the Dolby B-type noise reduction system*.
* Manufactured under license from Dolby Laboratories Licensing Corporation.
DOLBY and the double-D symbol ⊡⊡ are trademarks of Dolby Laboratories Licensing Corporation.

CD SECTION	Model Name Using Similar Mechanism	HCD-V800
	CD Mechanism Type	CDM38L-5BD24AL
	Base Unit Type	BU-5BD24AL
	Optical Pick-up Type	KSS-213D/Q-NP
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-GRX8/R800/RX88/RX99
	Tape Transport Mechanism Type	TCM-230AWR1 TCM-230PWR1

SPECIFICATIONS

Amplifier section

The following measured at AC 120, 220, 240 V 50/60Hz
DIN power output (rated)
105 + 105 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
130 + 130 watts
(8 ohms at 1 kHz, 10% THD)
Peak music power output (reference)
2000 watts

Inputs
VIDEO (AUDIO) IN (phono jacks): voltage 250 mV, impedance 47 kilohms
MD IN (phono jacks): voltage 450 mV, impedance 47 kilohms
MIC 1/2 (phone jack): sensitivity 1 mV, impedance 10 kilohms

Outputs
MD OUT (phono jacks): voltage 250 mV impedance 1 kilohms
VIDEO OUT (phono jack): max. output level 1Vp-p, unbalanced, Sync negative, load impedance 75 ohms
S-VIDEO OUT (4-pin/mini-DIN jack): Y: 1Vp-p, unbalanced, Sync negative, C: 0.286Vp-p, load impedance 75 ohms
PHONES (stereo phone jack): accepts headphones of 8 ohms or more
SPEAKER: accepts impedance of 8 to 16 ohms
SURROUND SPEAKER: accepts impedance of 16 ohms
SUPER WOOFER: Voltage 1 V, impedance 1 kilohm

VIDEO CD/CD player section

System: Compact disc and digital audio and video system
Laser: Semiconductor laser (λ=780nm) Emission duration: continuous
Laser output: Max. 44.6 μW* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Wavelength 780 – 790 nm
Frequency response 2 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio More than 90 dB
Dynamic range More than 90 dB

Video
Color system format NTSC, PAL

CD OPTICAL DIGITAL OUT
(Square optical connector jack, rear panel)
Wavelength 600 nm
Output Level –18 dBm

Tape player section

Recording system 4-track 2-channel stereo
Frequency response (DOLBY NR OFF) 40 – 13,000 Hz (±3 dB), using Sony TYPE I cassette
40 – 14,000 Hz (±3 dB), using Sony TYPE II cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

— Continued on next page —

COMPACT DISC DECK RECEIVER

MICROFILM

SONY®

FM tuner section

Tuning range	
2 band models:	87.5 – 108.0 MHz
3 band (FM–MW–SW) models:	
	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
2 Band type:	531 – 1,602 kHz (with the interval set at 9 kHz) 530 – 1,710 kHz (with the interval set at 10 kHz)
3 Band type:	
MW:	531 – 1,602 kHz (with the interval set at 9 kHz) 530 – 1,710 kHz (with the interval set at 10 kHz)
SW:	5.95 – 17.90 MHz (with the interval set at 5 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	120 V, 220 V or 230 - 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption:	280 watts
Dimensions (w/h/d)	Approx. 280 x 365 x 405 mm
Mass:	Approx. 11.9 kg
Supplied accessories:	AM loop antenna (1) Remote RM-SV88 (1) Batteries (2) FM lead antenna (1) Speaker cords (4) Video cable (1) Front speaker pads (8)

Design and specifications are subject to change without notice.

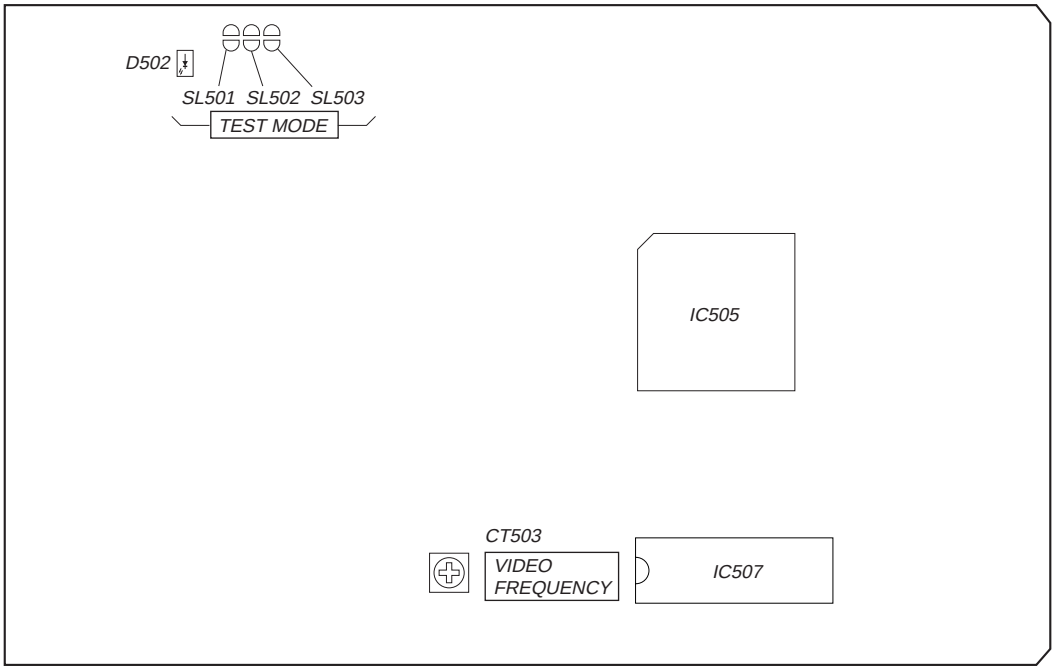
SELF DIAGNOSIS

This unit is equipped with a self-diagnosis function.
The function is used for diagnosing the conditions of the circuits of the VIDEO board.
The circuits can be determined if normal or abnormal by the lighting of D502 of the VIDEO board.

Lighting of D502

When lit : Operates normally
Blinks repeatedly : The circuit may be faulty.

[VIDEO BOARD] (SIDE A)



CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

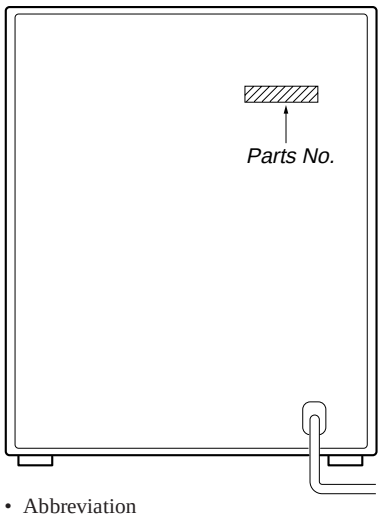
CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTASSA OLET ALTTINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLIG LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYLING LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYÁZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

The following caution label is located inside of the unit.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MODEL IDENTIFICATION — BACK PANEL —



- Abbreviation
  EA : Saudi arabia model
  HK : Hong Kong model
  SP : Singapore model
  MY : Malaysia model
  TW : Taiwan model
  IA : Indonesian model.

PARTS No.	MODEL
4-999-907-0☐	SP, MY
4-999-907-1☐	EA
4-999-907-3☐	HK
4-999-907-4☐	TW
4-999-907-5☐	IA

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveform is output two times.

TABLE OF CONTENTS

1. SERVICING NOTE 5

2. GENERAL 6

3. DISASSEMBLY

3-1. Loading Panel 9
3-2. Front Panel 9
3-3. Cassette Mechanism Deck 10
3-4. Panel Board and Cont Com Board 10
3-5. Disc Tray 11

4. TEST MODE 12

5. SERVICE MODE 14

6. MECHANICAL ADJUSTMENTS 16

7. ELECTRICAL ADJUSTMENTS 16

8. DIAGRAMS

8-1. Circuit Boards Location 22
8-2. Block Diagrams
- CD Section 23
- Video Section 25
- Deck Section 27
- Main Section 29
- Power Section 31
- Display Section 33
- Section 35

8-3. Printed Wiring Board – CD Section – 37
8-4. Schematic Diagram – CD Section – 39
8-5. Schematic Diagram – Deck Section – 41
8-6. Printed Wiring Board – Deck Section – 43
8-7. Printed Wiring Board – Video Section – 45
8-8. Schematic Diagram – Videon (1/3) Section – 47
8-9. Schematic Diagram – Videon (2/3) Section – 49
8-10. Schematic Diagram – Videon (3/3) Section – 51
8-11. Printed Wiring Board – Main Section – 53
8-12. Schematic Diagram – Main (1/4) Section – 55
8-13. Schematic Diagram – Main (2/4) Section – 57
8-14. Schematic Diagram – Main (3/4) Section – 59
8-15. Schematic Diagram – Main (4/4) Section – 61
8-16. Printed Wiring Board – Mic/HP Section – 63
8-17. Schematic Diagram – Mic/HP Section – 64
8-18. Printed Wiring Board – Power Amp Section – 65
8-19. Schematic Diagram – Power Amp Section – 67
8-20. Schematic Diagram – Transformer Section – 69
8-21. Printed Wiring Board – Transformer Section – 71
8-22. Printed Wiring Board – Leaf SW Section – 72
8-23. Schematic Diagram – Leaf SW Section – 72
8-24. Printed Wiring Board – Display Section – 73
8-25. Schematic Diagram – Display Section – 75
8-26. Schematic Diagram – Panel Section – 77
8-27. Printed Wiring Board – Panel Section – 79
8-28. Schematic Diagram – CD Motor Section – 81
8-29. Printed Wiring Board – CD Motor Section – 83
8-30. IC Block Diagrams 85
8-31. IC Pin Functions 87

9. EXPLODED VIEWS

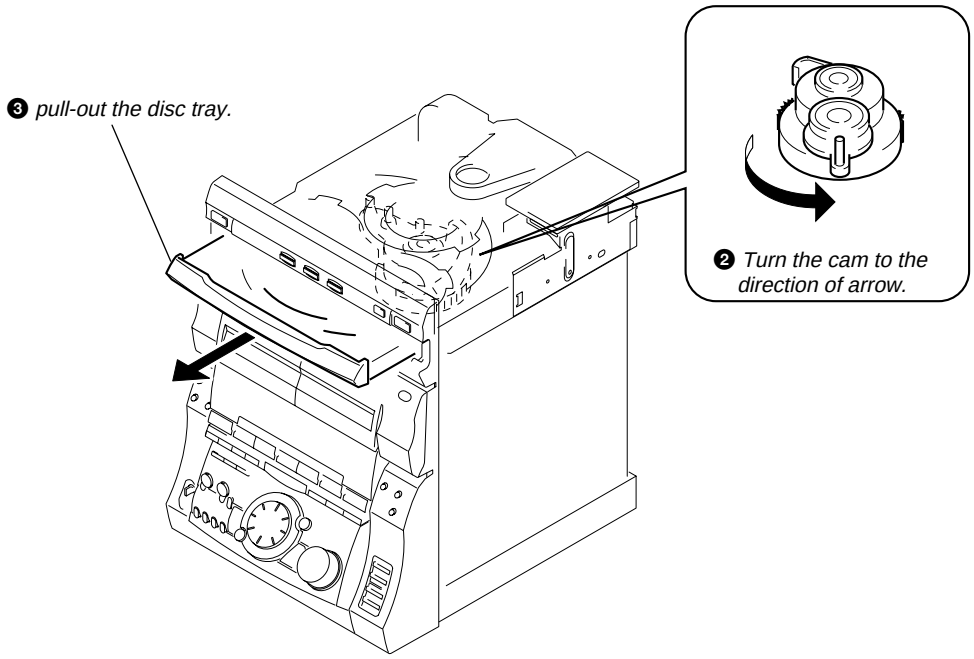
9-1. Case Section 99
9-2. Chassis Section 100
9-3. Front Panel Section 101
9-4. CD Mechanism Deck Section-1 (CDM38L-5BD24AL) .. 102
9-5. CD Mechanism Deck Section-2 (CDM38L-5BD24AL) .. 103
9-6. Base Unit Section (BU-5BD24AL) 104
9-7. TC Mechanism Section 1
(TCM230AWR1, TCM230PWR1) 105
9-8. TC Mechanism Section 2
(TCM230AWR1, TCM230PWR1) 106

10. ELECTRICAL PARTS LIST 107

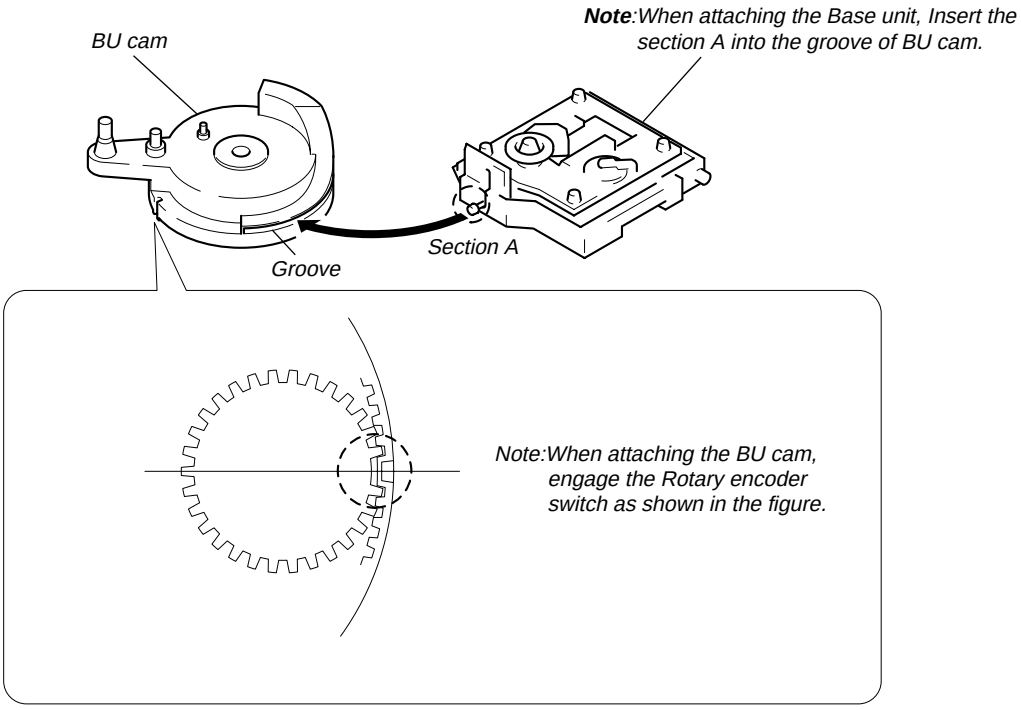
SECTION 1
SERVICING NOTE

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

❶ *Remove the case.*

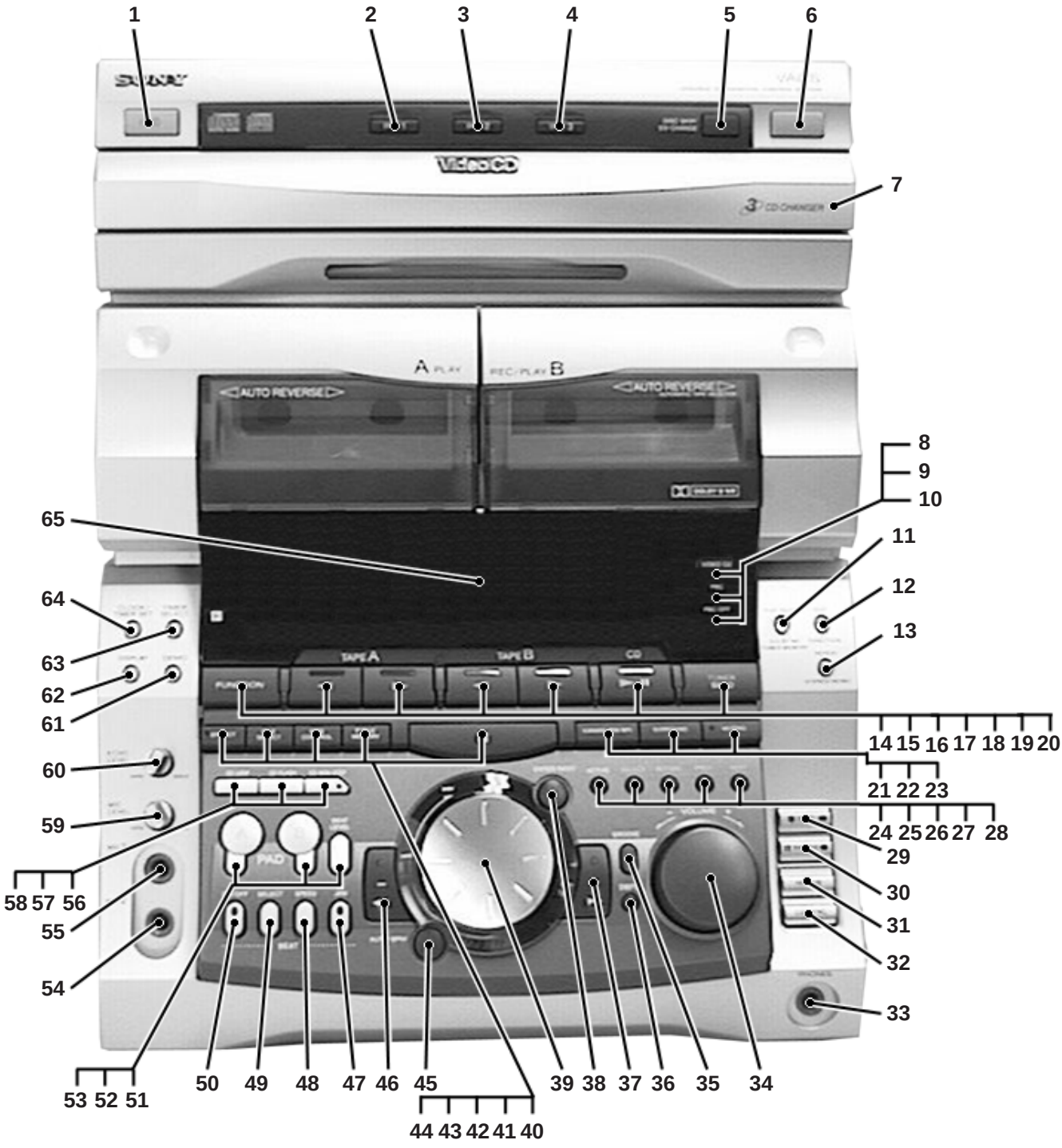


Note for Installation (ROTARY ENCODER)


BU cam
Note:When attaching the Base unit, Insert the section A into the groove of BU cam.
Section A
Groove
Note:When attaching the BU cam, engage the Rotary encoder switch as shown in the figure.

SECTION 2
GENERAL

Front Panel

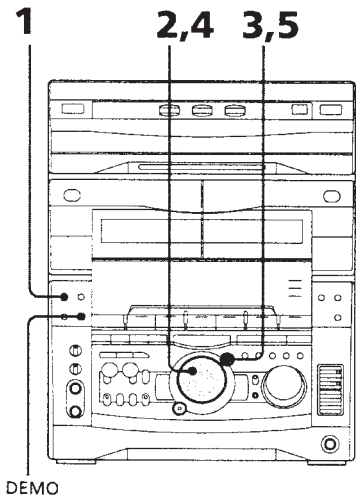


LOCATION OF PARTS AND CONTROLS

1 I/⏻ (POWER) button
2 DISC 1 button and indicator
3 DISC 2 button and indicator
4 DISC 3 button and indicator
5 DISC SKIP/EX-CHANGE button
6 ⏏ (EJECT) button
7 Disc tray
8 VIDEO CD indicator
9 PBC indicator
10 PCB OFF indicator
11 PLAY MODE/DOLBY NR TUNER MEMORY button
12 EDIT/DIRECTION button
13 REPEAT/STEREO/MONO button
14 FUNCTION button
15 TAPE A ◄ button and indicator
16 TAPE A ► button and indicator
17 TAPE B ◄ button and indicator
18 TAPE B ► button and indicator
19 CD ►II button and indicator
20 TUNER/BAND button
21 KARAOKE PON/MPX button
22 SURROUND button
23 SONIC FORMATION button and indicator
24 ACTIVE button
25 SELECT button
26 RETURN button
27 PREV button
28 NEXT button
29 ● REC button and indicator
30 II PAUSE button and indicator
31 HI-DUB button
32 CD SYNC button
33 PHONES jack
34 VOLUME, +, – knob
35 GROOVE button and indicator
36 DBFB button
37 ►►, + button and indicator
38 ENTER/NEXT button and indicator
39 JOG dial
40 ■ button
41 P FILE MEMORY button
42 GEQ CONTROL button
43 FILE SELECT button
44 FILE button and indicator
45 AUTO BPM button and indicator
46 ◄◄, – button and indicator
47 JAM button and indicator
48 SPEED button
49 SELECT button
50 ON/OFF button and indicator
51 BEAT LEVEL button
52 PAD B button
53 PAD A button
54 MIC 2 jack
55 MIC 1 jack
56 CD NON-STOP button and indicator
57 CD FLASH button
58 CD LOOP button
59 MIC LEVEL knob
60 ECHO LEVEL knob
61 DEMO button
62 DISPLAY button
63 TIMER/SELECT button
64 CLOCK/TIMER SET button
65 Display window

Step 2: Setting the time

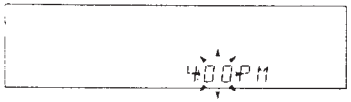
You must set the time before using the timer functions.



1 Press CLOCK/TIMER SET.
The hour indication flashes.

2 Turn the jog dial to set the hour.

3 Press ENTER/NEXT.
The minute indication flashes.



4 Turn the jog dial to set the minute.

5 Press ENTER/NEXT.
The clock starts working.

Tips

- If you've made a mistake, start over from step 1.
- Setting the time deactivates the demo mode. If you want to display the demo mode, press DEMO when the power is off.

Note

The previous explanation shows you how to set the time while the power is off. To change the time while the power is on, do the following:

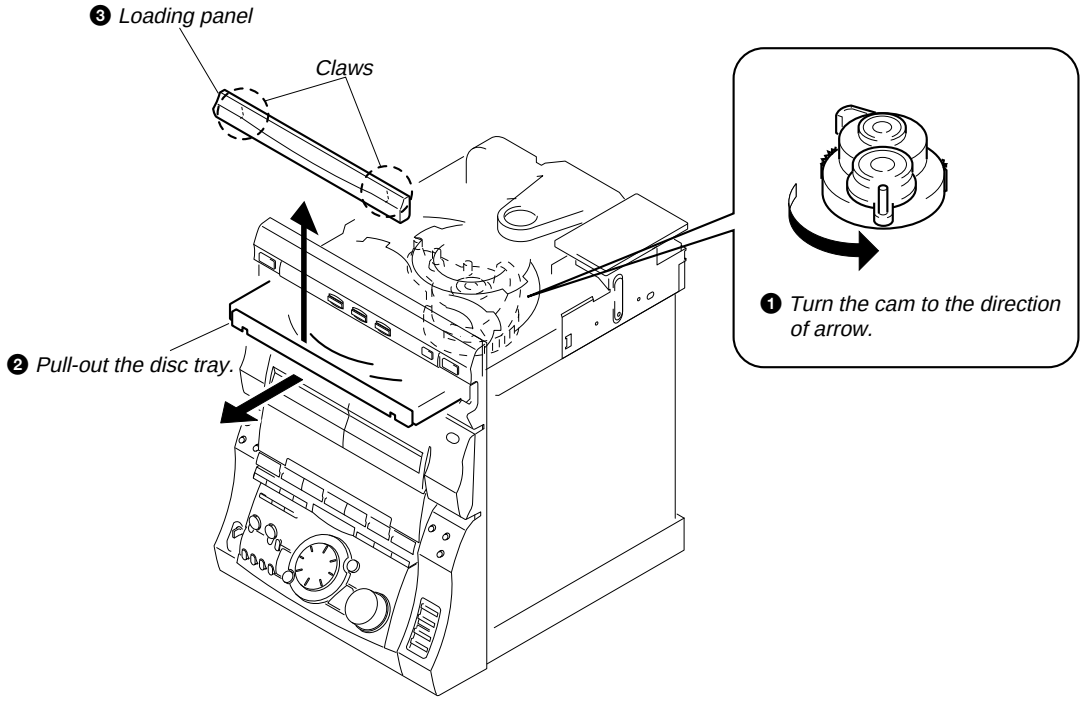
1 Press CLOCK/TIMER SET.
2 Turn the jog dial to select "SET CLOCK".
3 Press ENTER/NEXT.
4 Perform steps 2 through 5 above.

This section is extracted from instruction manual.

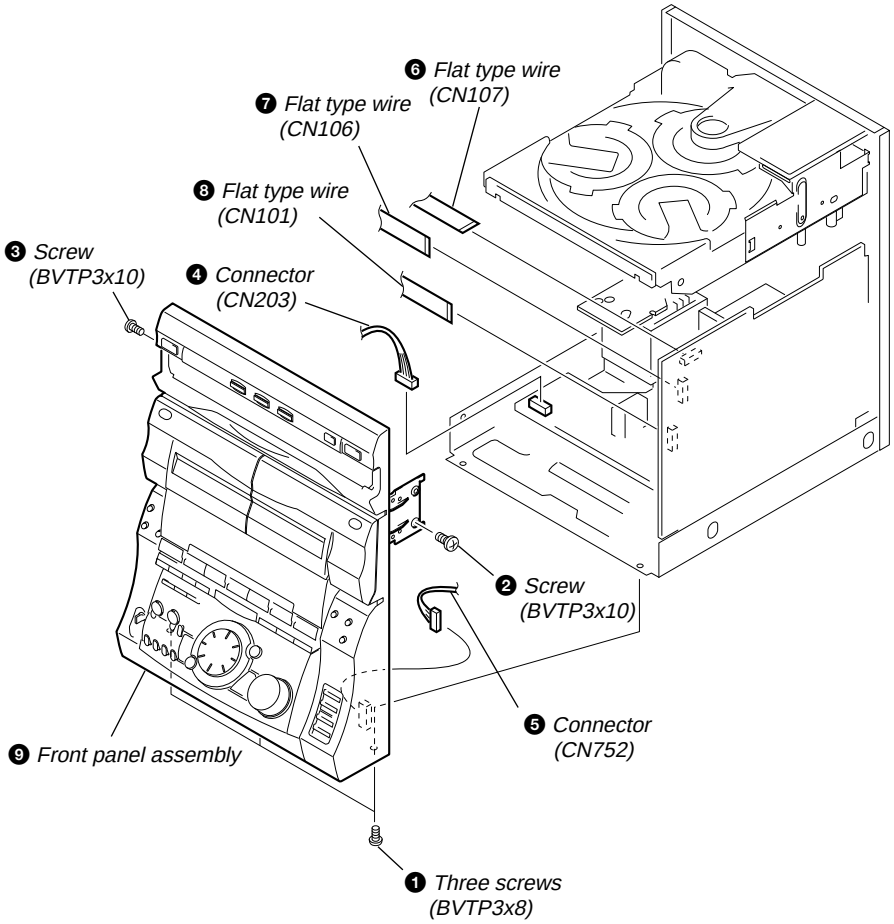
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

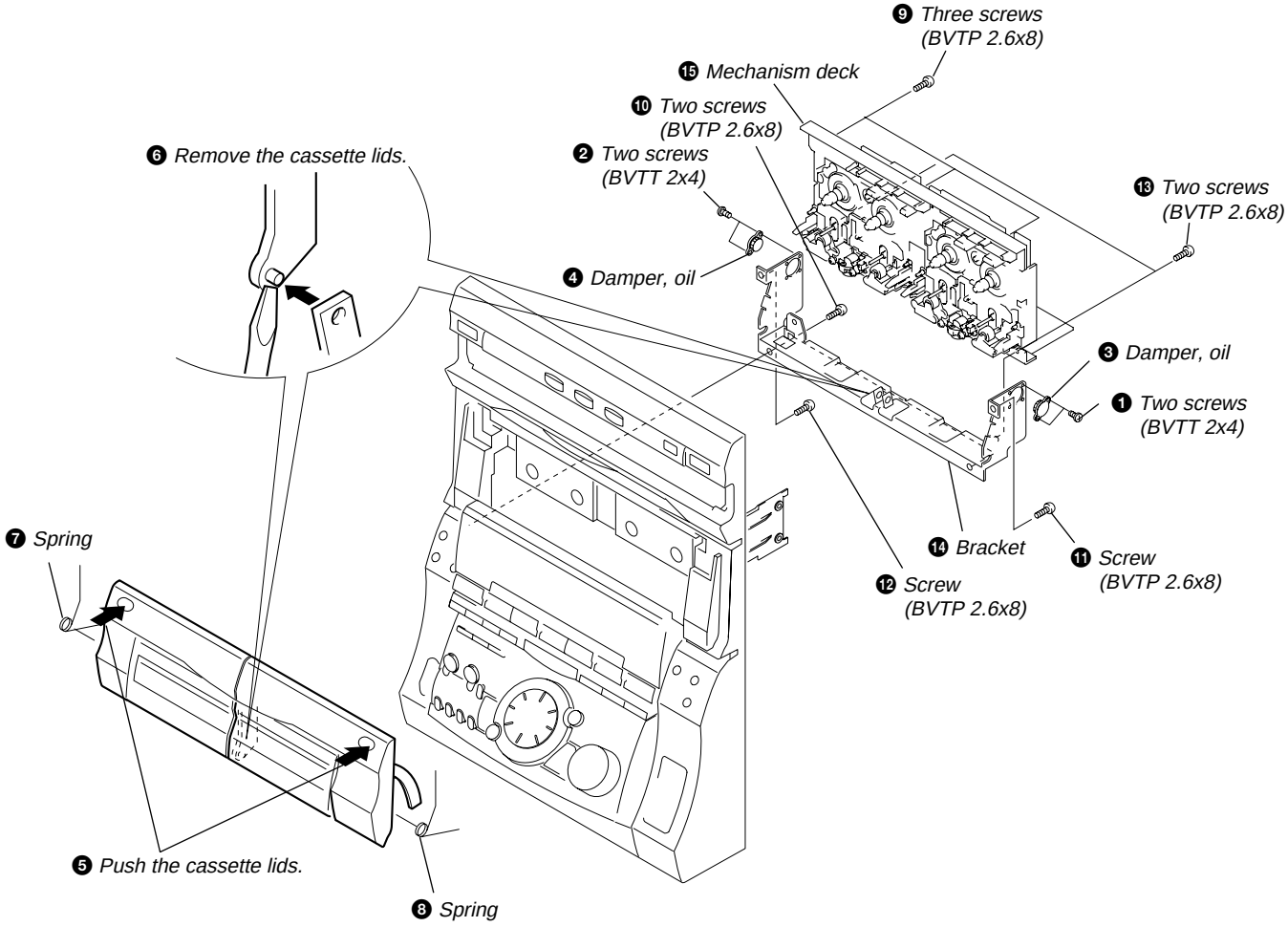
3-1. LOADING PANEL



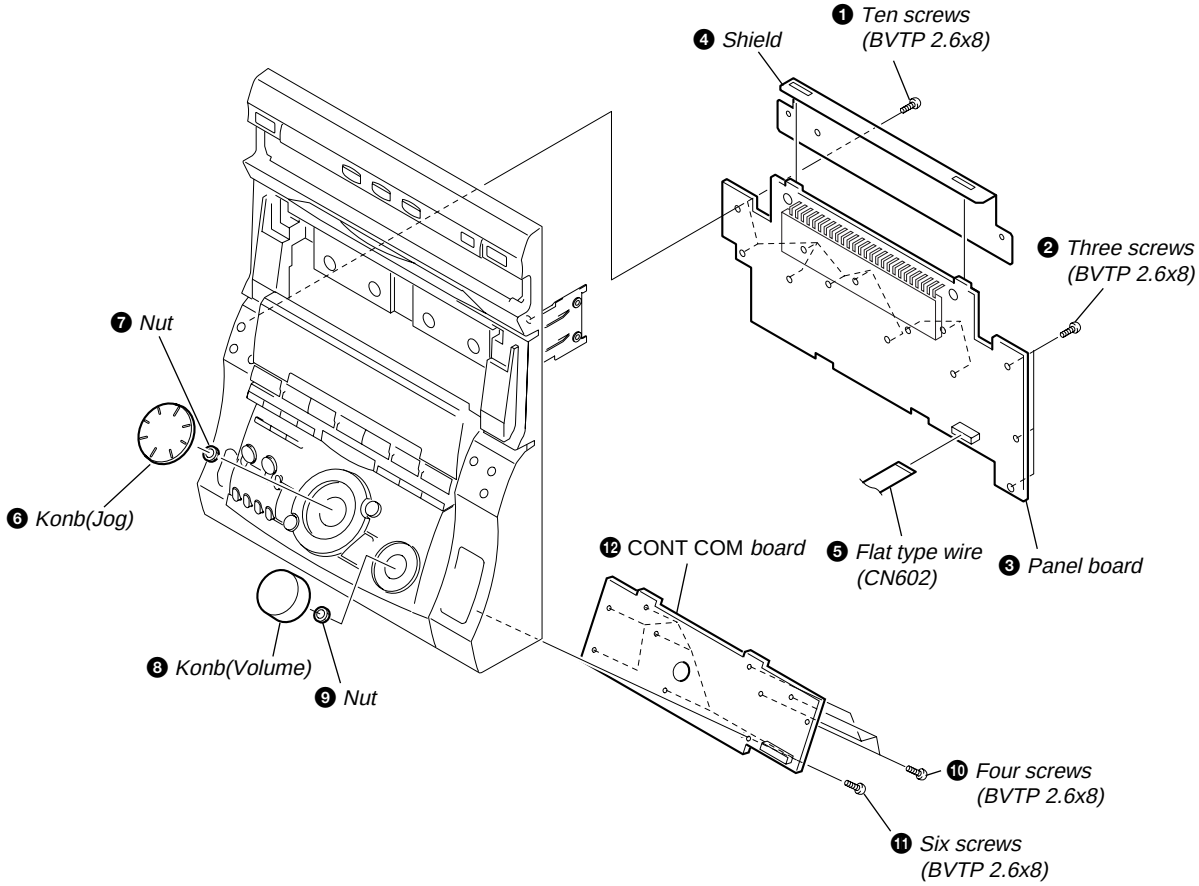
3-2. FRONT PANEL



3-3. CASSETTE MECHANISM DECK



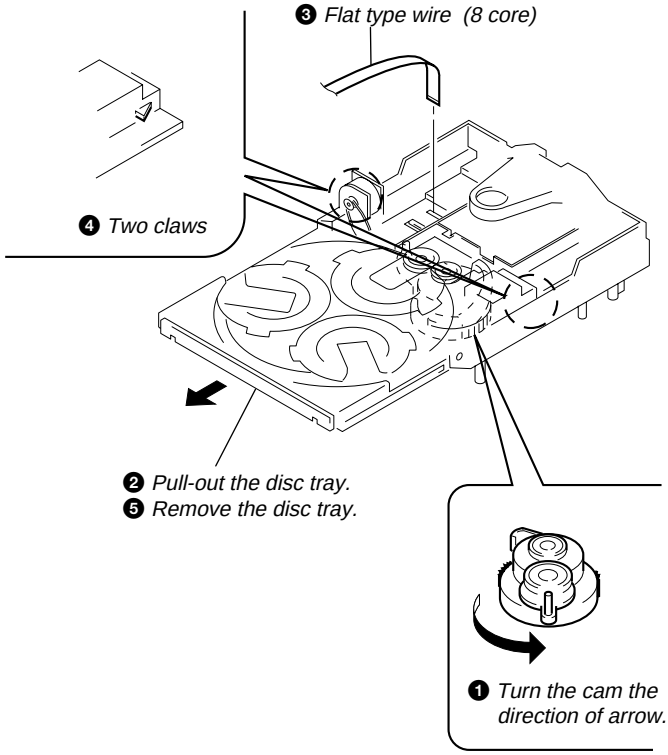
3-4. PANEL BOARD AND CONT COM BOARD

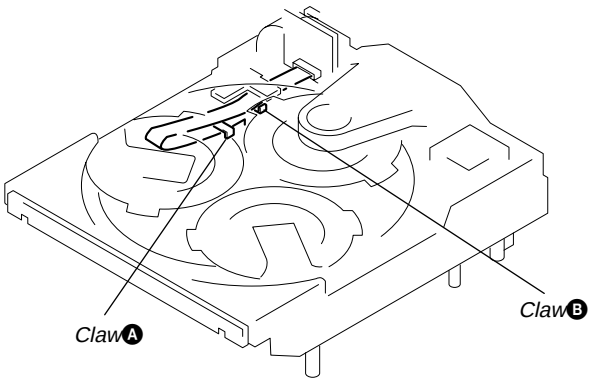


3-5. DISC TRAY

(Perfom after removing the front panel.)

Note: *When installing the Disc tray, pull around the flat type wire to pass through the clawA and clawB, as shown in the figure.*





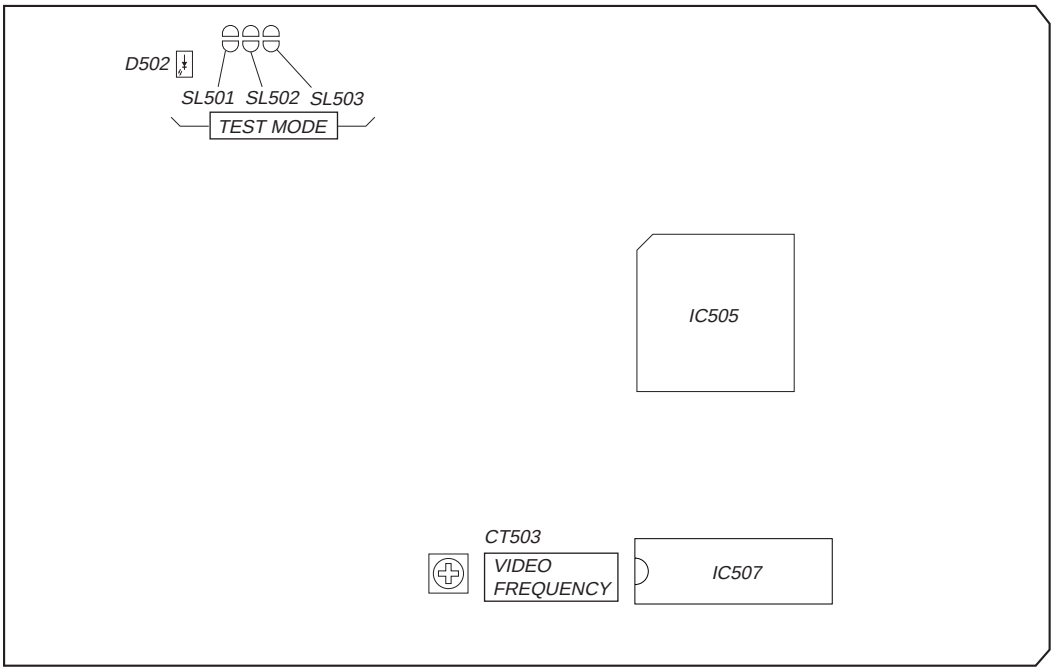
SECTION 4
TEST MODE

VIDEO CD COLOR-BARS MODE

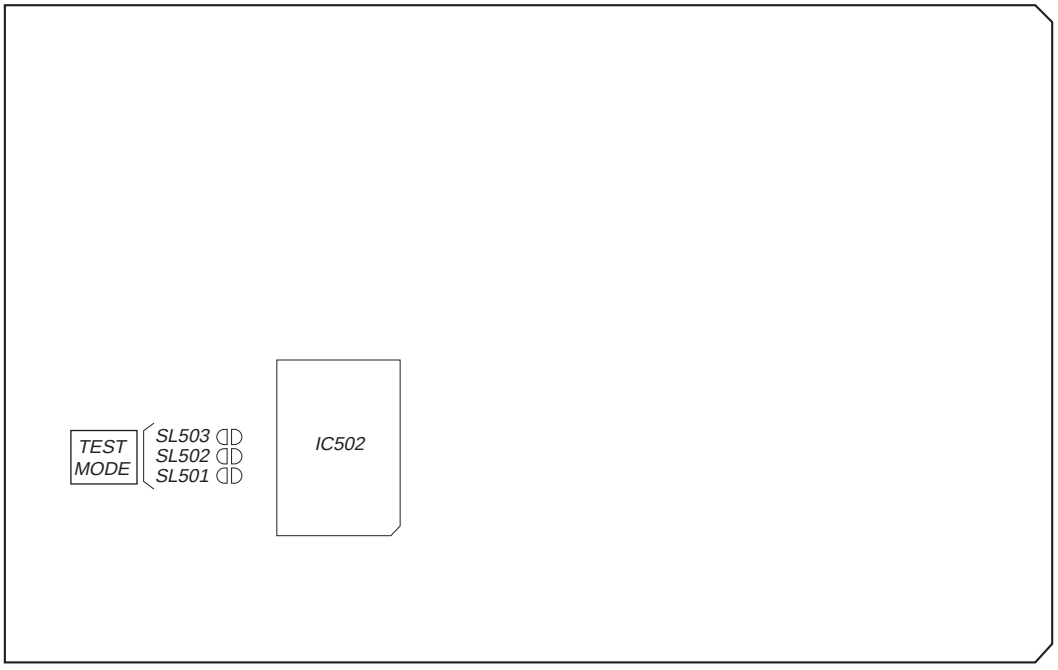
On this mode, the data of the color-bars signal as a picture signal and the 1kHz sine wave signal as a sound signal are output by the mechanism control microcomputer (IC502) for video CD signal check. When measurement of the voltage and waveform on the VIDEO board, perform it in this mode.
For refernce, the color-bars signal can be observed at J302 (VIDEO OUT) and the sound signal can be observed at J101 (VIDEO/MD (AUDIO) OUT) using an oscilloscope.

1. Connect the lead wire to both ends of the land of SL503 of the VIDEO board.
2. Turn the power on. Press FUNCTION button to select CD.
3. After 2 or 3 seconds later, connect the lead wire.
4. After measuring, remove the lead wire connected.

[VIDEO BOARD] (SIDE A)



[VIDEO BOARD] (SIDE B)



IC502 OF VIDEO BOARD

IC502 of the VIDEO board consists of the former type and new type. The following table shows the differences between the two types. Only spare parts for the new type IC502 are supplied.
Units using the former IC502 will not function when replaced with the new type without performing the following procedure. Consequently, replace IC502 of units using the former type according to the following procedure.

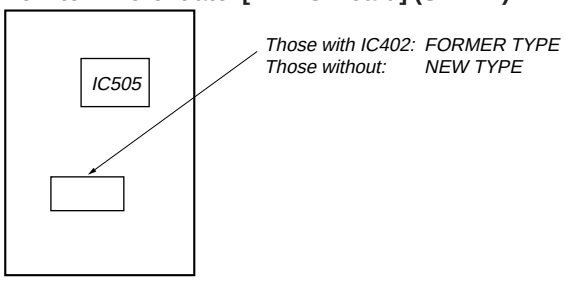
Table of Differences

	FORMER TYPE	NEW TYPE
C407, 408	MOUNT	NO MOUNT
IC502	M306200MC-302FP	M306200MC-305FP
JW421, JW422	NO MOUNT	MOUNT
IC402	MOUNT	NO MOUNT
R413, 421, 422	MOUNT	NO MOUNT
X401	MOUNT	NO MOUNT

Replacing Procedure

1. Remove IC402.
2. Solder JW421 and JW422, or short-circuit with a lead wire, etc.
3. Replace IC502 with a new one.

How to Differentiate [VIDEO Board] (SIDE A)



SECTION 5
SERVICE MODE

MC Cold Reset

• The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons [■], [ENTER/NEXT], and [I/⏻] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

CD Delivery Mode

• This mode moves the pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Press [CD LOOP] button and [I/⏻] button simultaneously.
3. A message “LOCK” is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

MC Hot Reset

• This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons [■], [ENTER/NEXT], and [DISC 1] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

Sled Servo Mode

• This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

1. Select the function “CD”.
2. Press three buttons [■], [ENTER/NEXT], and [⏏] simultaneously.
3. The Sled Servo mode is selected, if “CD” is blanking on the fluorescent indicator tube.
4. With the CD in stop status, press [►► +] utton move the pick-up to outside track, or [– ◄◄] button to inside track.
5. To exit from this mode, perform as follows:
   1) Move the pick-up to the most inside track.
   2) Press three buttons in the same manner as step 2.

Note:

• Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
• Do not run the sled motor excessively, otherwise the gear can be chipped.

Change-over of AM Tuner Step between 9kHz and 10kHz

• A step of AM channels can be changed over between 9kHz and 10kHz.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function “TUNER”, and press [TUNER/BAND] button to select the BAND “AM”.
3. Press [I/⏻] button to turn the set OFF.
4. Press [ENTER/NEXT] and [I/⏻] buttons simultaneously, and the display of fluorescent indicator tube changes to “AM 9k STEP” or “AM 10k STEP”, and thus the channel step is changed over.

LED and Fluorescent Indicator Tube All Lit, Key Check Mode

Procedure:

1. Press three buttons [■], [ENTER/NEXT], and [DISC 2] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
   Press [DISC 2] button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays “K 1 V0 J0”. Each time a button is pressed, “K”value increases. However, once a button is pressed, it is no longer taken into account.
   “J” Value increases like 1, 2, 3 ... if rotating [JOG] dial in “+” direction, or it decreases like 0, 9, 8 ... if rotating in “-” direction.
   “V” Value increases like 1, 2, 3 ... if rotating [VOLUME] knob in “+” direction, or it decreases like 0, 9, 8 ... if rotating in “-” direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

Aging Mode

This mode can be used for checking the operations of the CD player and tape deck.

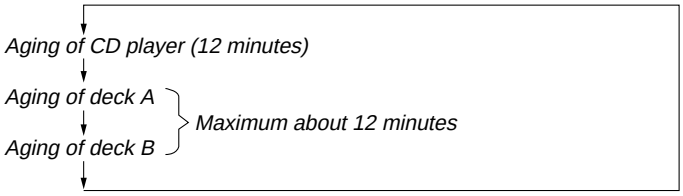
• When problems occur;
  Aging stops. If currently aging the tape deck, the state when aging stops will be displayed on the fluorescent indicator tube.
• When no problems;
  Aging continues.

Preparations:

• Set the CD on the DISC1 tray.
• Insert a commercially available tape for recording (tapes which contents can be erased, etc.) in decks A and B.

Setting the aging mode:
Press the ■ button, ENTER/NEXT button, and DISC SKIP/EX-CHANGE button together.
When the aging mode is set, the CD roulette mark blinks. To exit the mode, press the I/⏻ button and turn OFF the power.

Sequence:
The aging mode is executed in the following sequence.
If the function is set to "CD" when the aging mode is set, aging is performed starting from the CD player. When set to "TAPE A" or "TAPE B", aging is started from deck A.
If the function is set to others, aging will not be started until the function is switched to CD or TAPE.



Display of status:
- The aging status is displayed on the fluorescent display tube. (Only when executing the tape deck section.)
- During the aging of the tape deck, the operations performed will be displayed. If operations ended abnormally, this will be displayed at the fluorescent indicator tube.

Tape Deck

Display of Operations	Operation	Timing of Ending
TAPE A AG-1	TAPE A REW	Shutoff
TAPE A AG-2	TAPE A FWD	2 minute playback
TAPE A AG-3	TAPE A FF	20 seconds or shutoff
TAPE A AG-4	TAPE A REV	2 minutes playback
TAPE A AG-5	TAPE A REW	Shutoff
TAPE B AG-1	TAPE B REW	Shutoff
TAPE B AG-2	TAPE B FWD	2 minute playback
TAPE B AG-3	TAPE B FF	20 seconds or shutoff
TAPE B AG-4	TAPE B REV	2 minute playback
TAPE B AG-5	TAPE B REW	Shutoff

Operations during aging
- Operations are performed in the following sequence during aging

<CD player>
1. The CD tray rotates and disc 1 is selected.
2. Chucking is performed.
3. TOC is read.
4. Track 1 played back for 8 seconds.
5. The CD tray opens and closes again.
6. 1 to 5 is repeated.
7. After 12 minutes of aging, aging is switched to the tape deck.

<Tape Deck>
1. The tape in deck A is rewound to the head.
2. The FWD side is played back for 2 minutes.
3. The tape is fast forwarded (FF) for 20 seconds. The following procedure is performed when the tape end is reached before the 20 seconds.
4. The REV side is played back for 2 minutes.
5. The tape is rewound to the head (REW).
6. The tape in deck B is rewound to the head.
7. The FWD side is played back for 2 minutes.
8. The tape is fast forwarded (FF) for 20 seconds. The following procedure is performed when the tape end is reached before the 20 seconds.
9. The REV side is played back for 2 minutes.
10. The tape is rewound to the head (REW).
11. Aging is switched to the CD player.

SECTION 6
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   - record/playback heads
   - erase head
   - capstan
   - pinch rollers
   - rubber belts
   - idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	31 to 71 g • cm (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	2 to 6 g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	31 to 71 g • cm (0.43 – 0.98 oz • inch)
REV back tension	CQ-102RC	2 to 6 g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	71 to 143 g • cm (0.98 – 1.99 oz • inch)
FWD tension	CQ-403A	100 g or more (3.53 oz or more)
REV tension	CQ-403R	100 g or more (3.53 oz or more)

SECTION 7
ELECTRICAL ADJUSTMENTS

DECK SECTION **0 dB=0.775V**

1. Demagnetize the record/playback head with a head damagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.

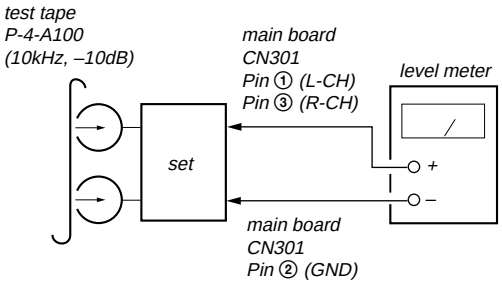
Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment (Deck A, Deck B)

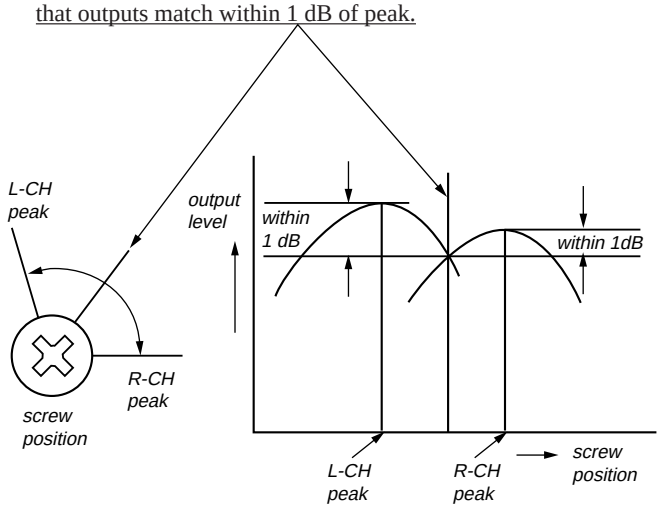
Note: Perform this adjustments for both decks.

Procedure:

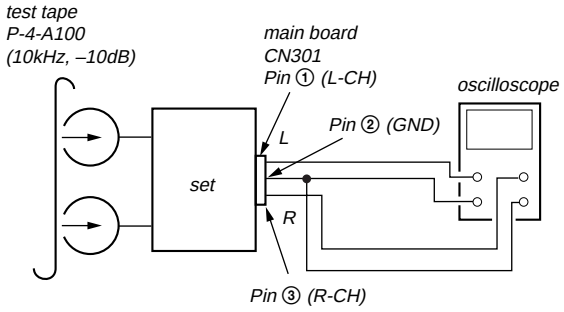
1. Mode : Playback

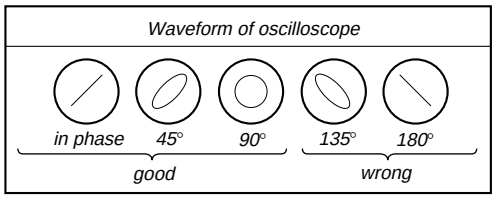


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



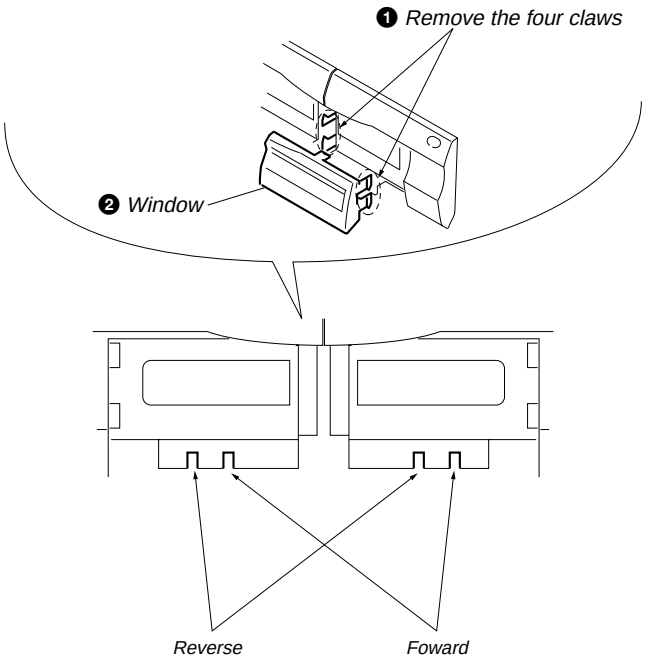
3. Mode: Playback





4. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Playback Head (Deck A)
Record/Playback/Erase Head (Deck B)



Tape Speed Adjustment (Deck A)

Note: Set the test mode using the following method and begin tape speed adjustment.
In the test mode, the speed will switch to double speed or normal speed each time the HI-DUB button is pressed.

Procedure:
With the power turned ON, press the ■ button, ENTER/NEXT button, and DISC 3 button simultaneously.
(The "VOLUME" on the fluorescent display tube will blink while in the test mode.)
To exit the test mode, press the I/⏻ button.

1. Insert the WS-48B into deck B.
2. Press the ▷ button of deck B.
3. Press the HI-DUB button and play the tape at double speed.
4. Adjust RV1001 of the LEAF SW board so that the reading of the frequency counter becomes 6000 ± 180 Hz.
5. Press the HI-DUB button and play the tape at normal speed.
6. Adjust RV1002 of the LEAF SW board so that the reading of the frequency counter becomes 3000 ± 90 Hz.

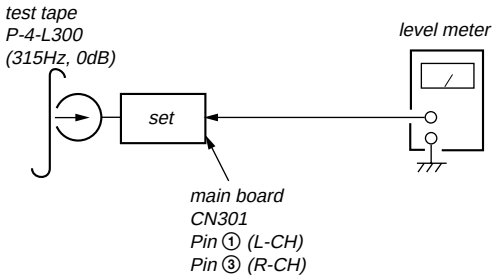
Adjustment Location: LEAF SW board

Sample Value of Wow and flutter

± 0.15% W.Peak (IEC)
0.1% W.RMS (NAB)
± 0.2% W.Peak (DIN)

Playback Level Adjustment (Deck A, Deck B)

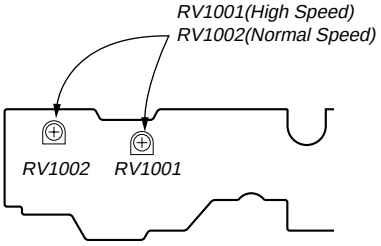
Procedure:
Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), deck B is RV301 (L-CH) and RV401 (R-CH)
so that adjustment within the following adjustment level.

Adjustment level:
CN301 playback level: 301.5 to 338.3 mV (–8.2 to –7.2 dB)
level difference between the channels: within ± 0.5 dB
Adjustment Location: AUDIO board

Adjustment Location [LEAF SW BOARD]

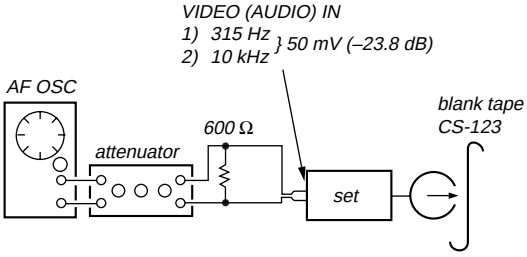


Record Bias Adjustment (Deck B)

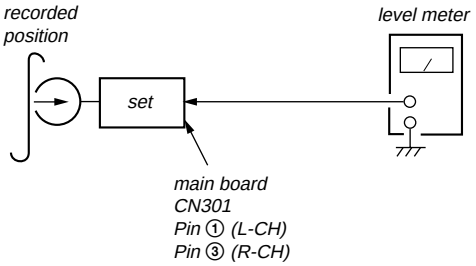
Procedure:

INTRODUCTION
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.
(After recording, press the [– ◀◀] button without stopping will return to the position where recording was started.)

1. Press [FUNCTION] button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B, press the [● REC] button, and then press the [►] button to start recording.
3. Mode: Record



4. Mode: Playback



5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
   If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 3 and 4.

Adjustment level: The playback output of 10 kHz level difference against 315 Hz reference should be ± 1.0 dB.

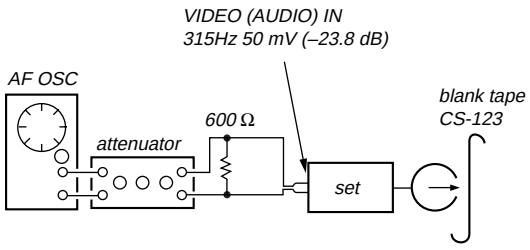
Adjustment Location: AUDIO board

Record Level Adjustment (Deck B)

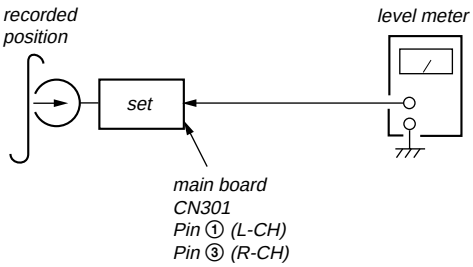
Procedure:

INTRODUCTION
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.
(After recording, press the [– ◀◀] button without stopping will return to the position where recording was started.)

1. Press [FUNCTION] button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Insert a tape into deck B, press the [● REC] button, and then press the [►] button to start recording.
3. Mode: Record



4. Mode: Playback

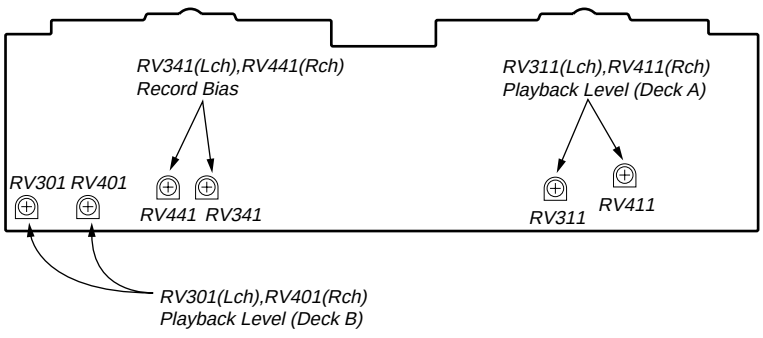


5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
   If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 3 and 4.

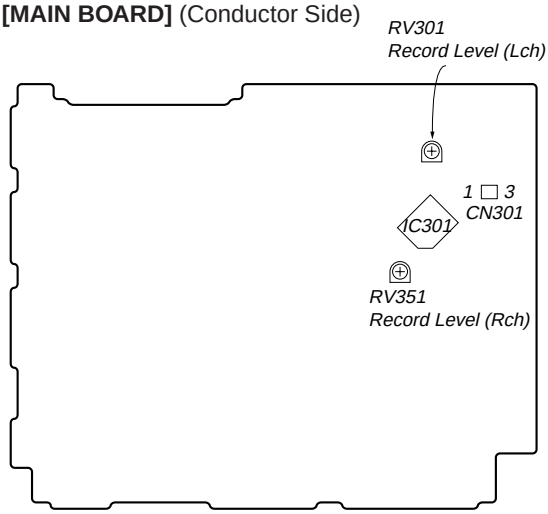
Adjustment level:
CN403 playback level: 47.2 to 53.0 mV (–24.3 to –23.3 dB)

Adjustment Location: MAIN board

Adjustment Location:
[AUDIO BOARD] (Conductor Side)



[MAIN BOARD] (Conductor Side)

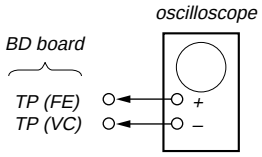


CD SECTION

NOTE :

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

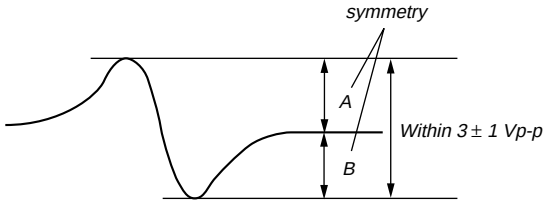
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B.
   And confirm peak to peak level within 3±1 Vp-p.

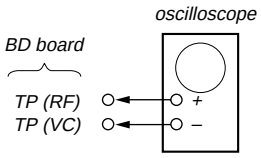
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

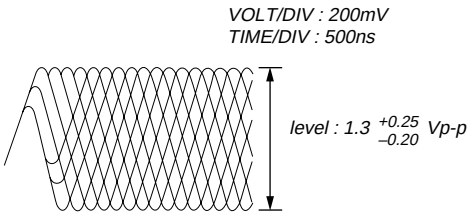


Procedure :

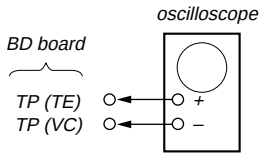
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note : A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform



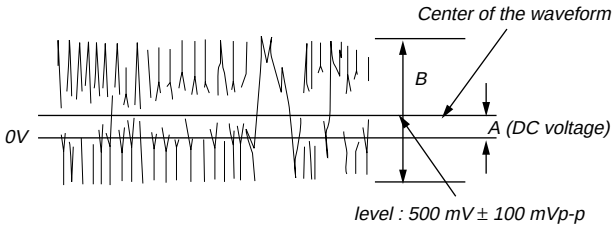
E-F Balance (Traverse) Check (Without remote comander)



Procedure :

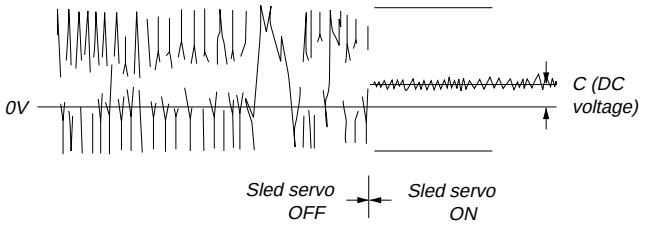
1. Short-circuit SL502 of the video board to GND.
2. Connect oscilloscpe to test point TP (TE) on BD board.
3. Turned Power switch on. Press FUNCTION button to select CD.
4. Set a disc (YEDS-18) and play.
5. Press the PLAY MODE button.
   (The sledding servo is turned OFF.)
6. Check the level B of the oscilliscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 7%

Traverse waveform

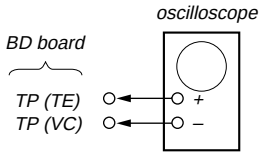


7. Press the PLAY MODE button. (The tracking servo and sledding servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 6.

Traverse waveform



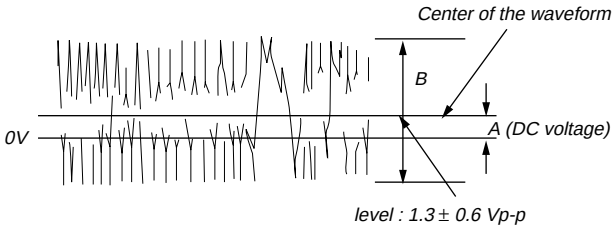
E-F Balance (Traverse) Check (With remote commander)



Procedure :

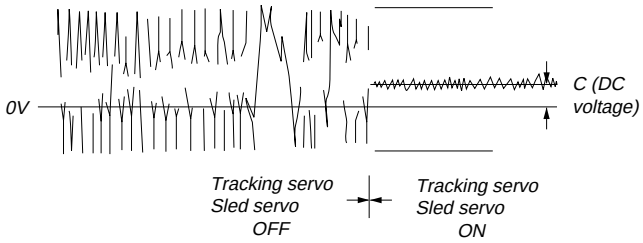
1. Connect oscilloscpe to test point TP (TE) on BD board.
2. Short-circuit SL502 of the video board to GND.
3. Turned Power switch on. Press FUNCTION button to select CD.
4. Put disc (YEDS-18) in to play the number five track.
5. Press the PLAY MODE button. (The tracking servo and the sledding servo are turned OFF.)
6. Check the level B of the oscilliscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 22%

Traverse waveform



7. Press the PLAY MODE button. (The tracking servo and sledding servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 7.

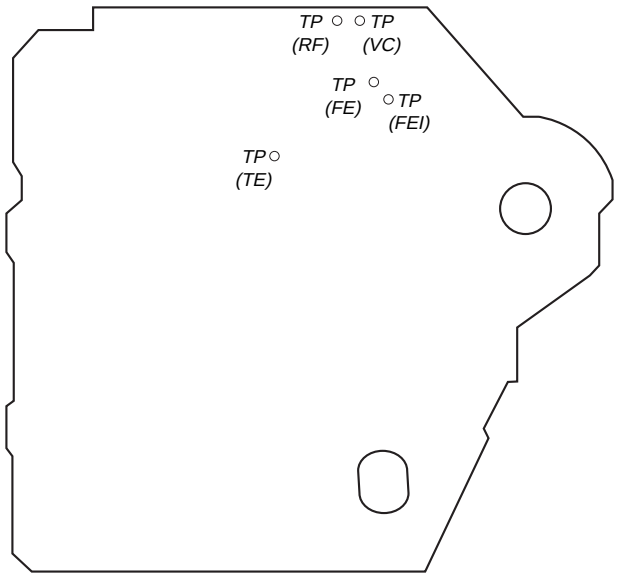
Traverse waveform



8. Desolder the short-land (SL502) short-circuited at step 2.

Adjustment Location :

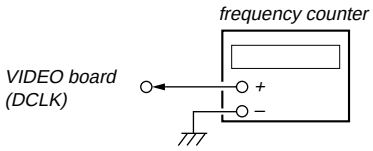
[BD BOARD] – SIDE A –



VIDEO SECTION

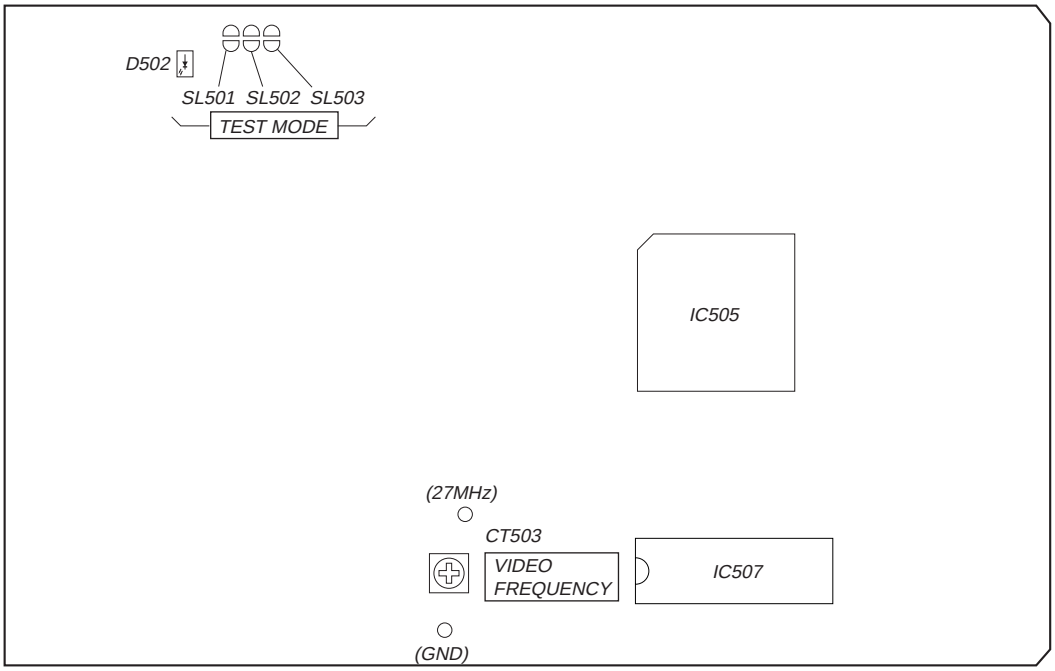
Frequency adjustment

1. Connect the frequency counter to check point of the VIDEO board.
2. Adjust CT503 of the VIDEO board so that the frequency counter read 27MHz ± 80Hz at STOP condition.

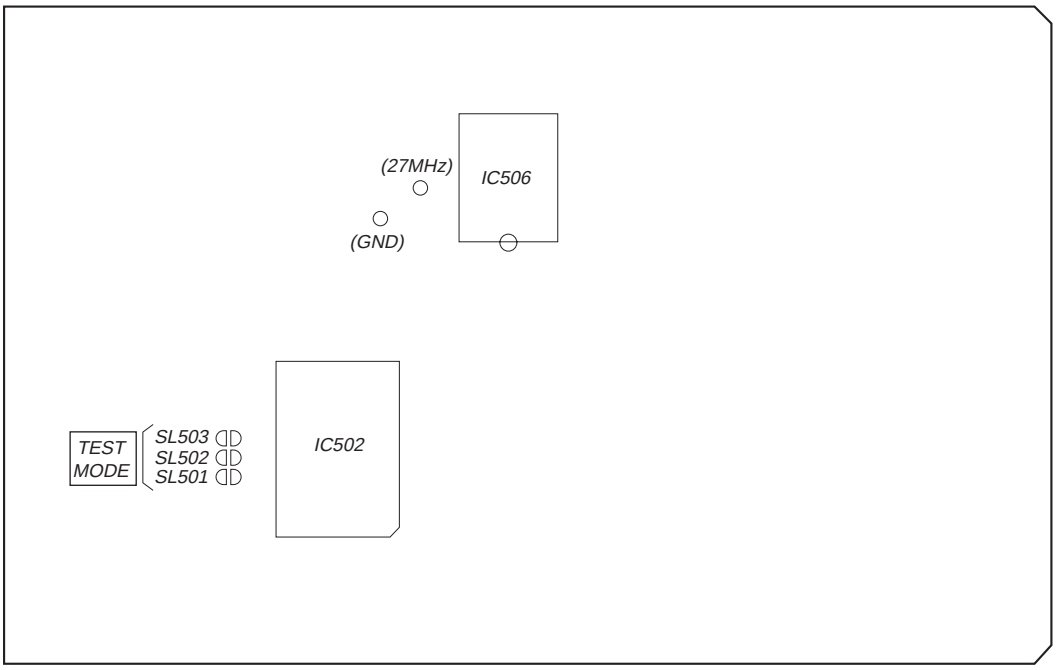


Adjustment Location :

[VIDEO BOARD] – SIDE A –

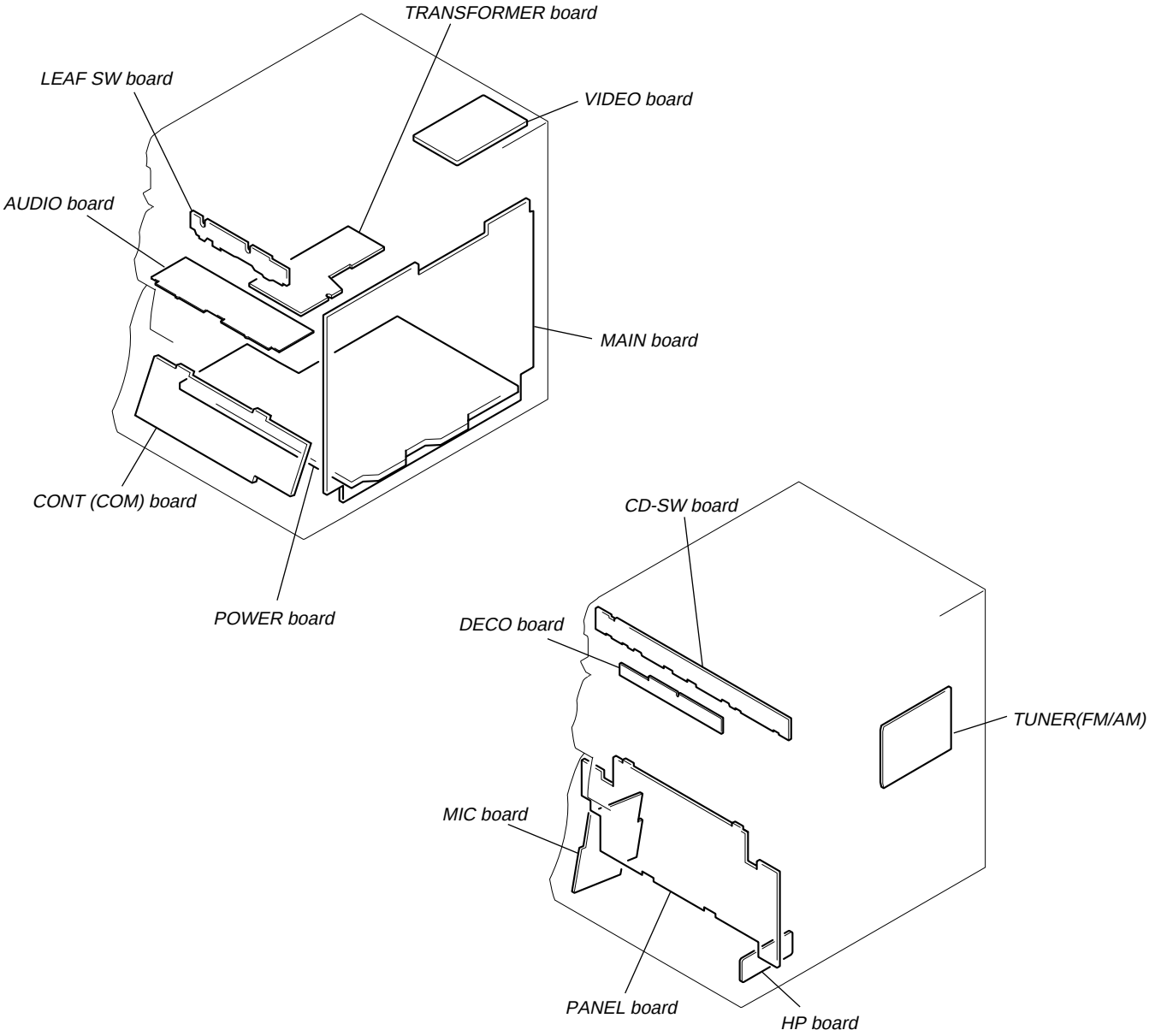


[VIDEO BOARD] – SIDE B –

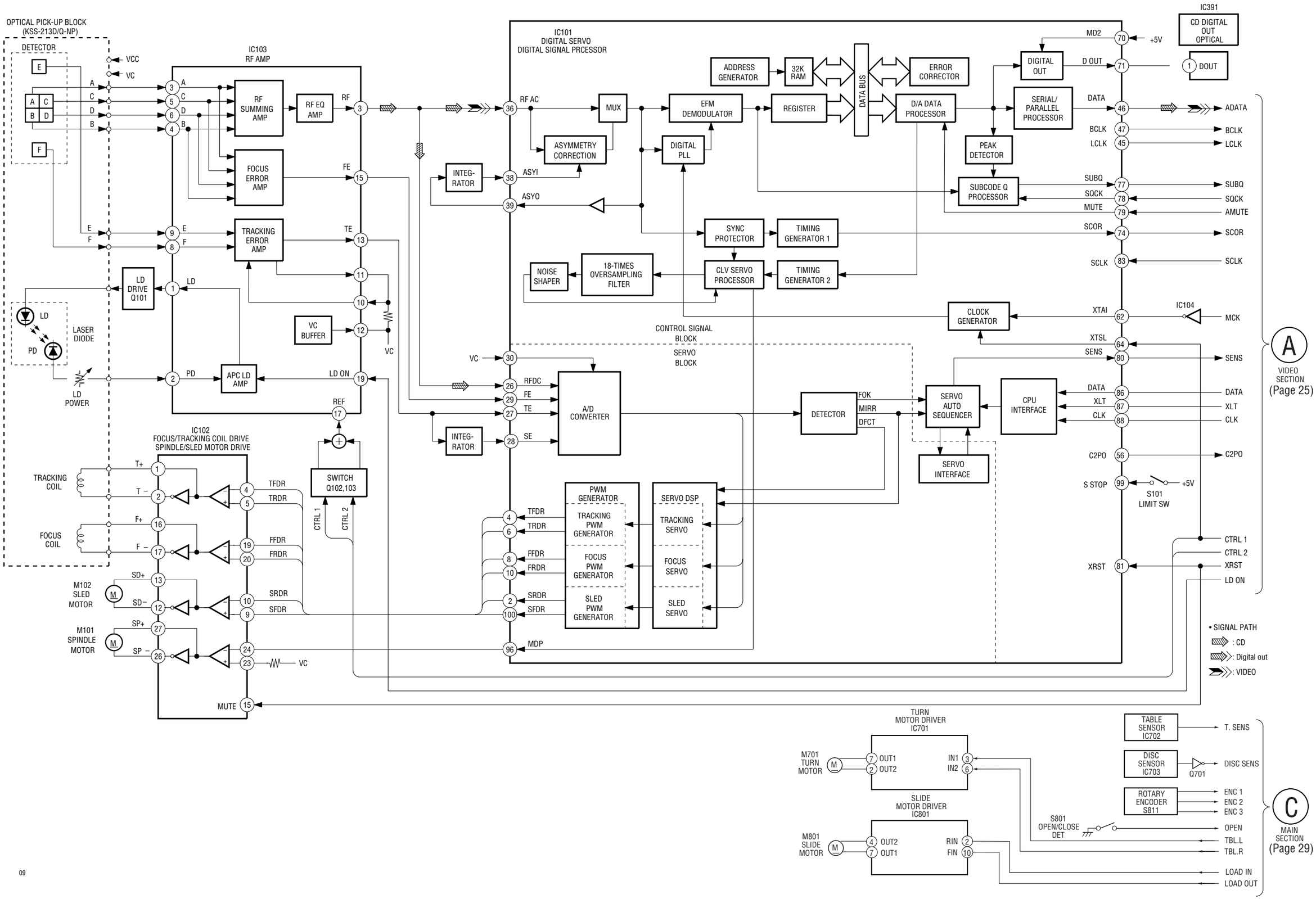


SECTION 8
DIAGRAMS

8-1. CIRCUIT BOARDS LOCATION



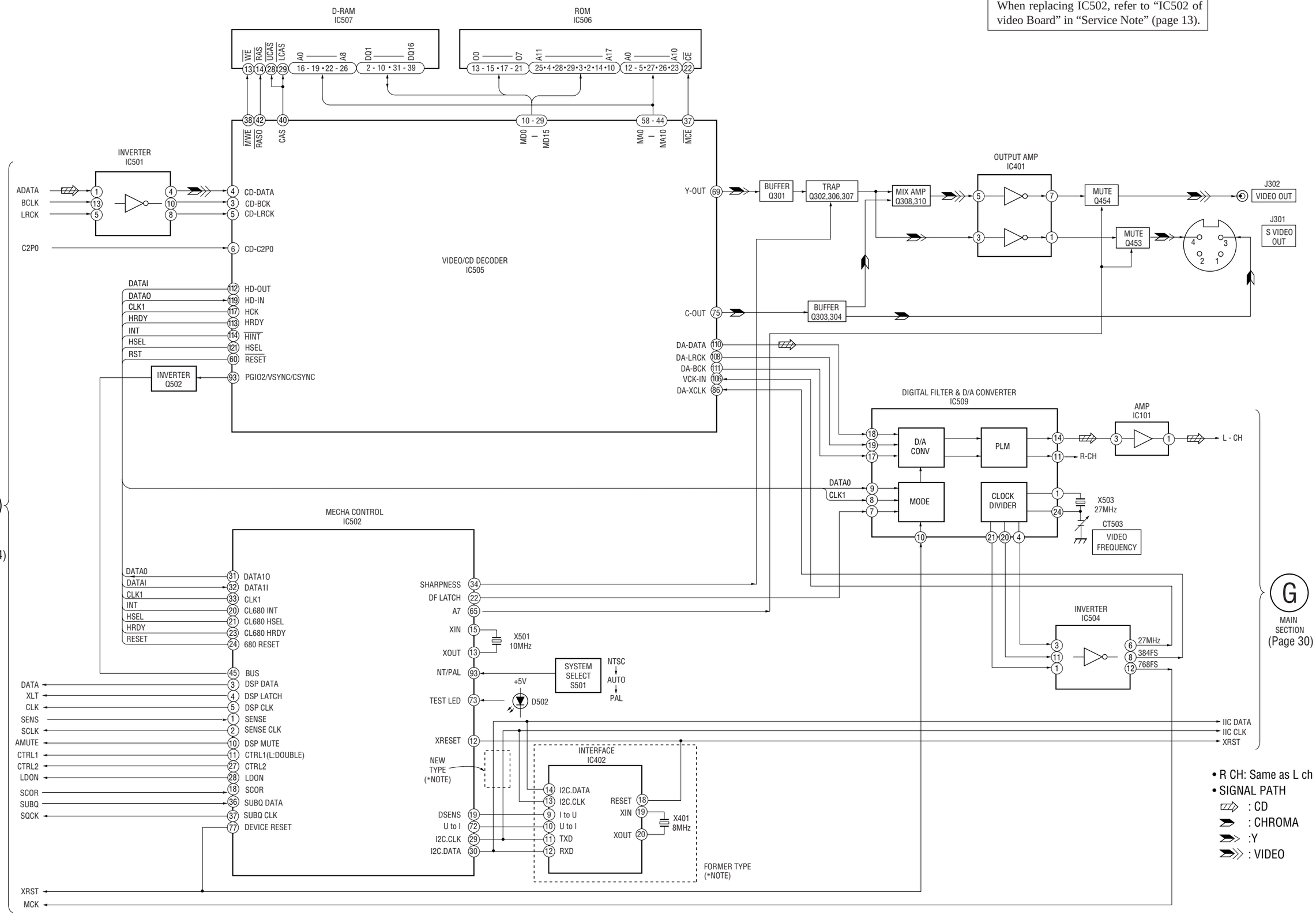
8-2. BLOCK DIAGRAMS
– CD SECTION –



09

– VIDEO SECTION –

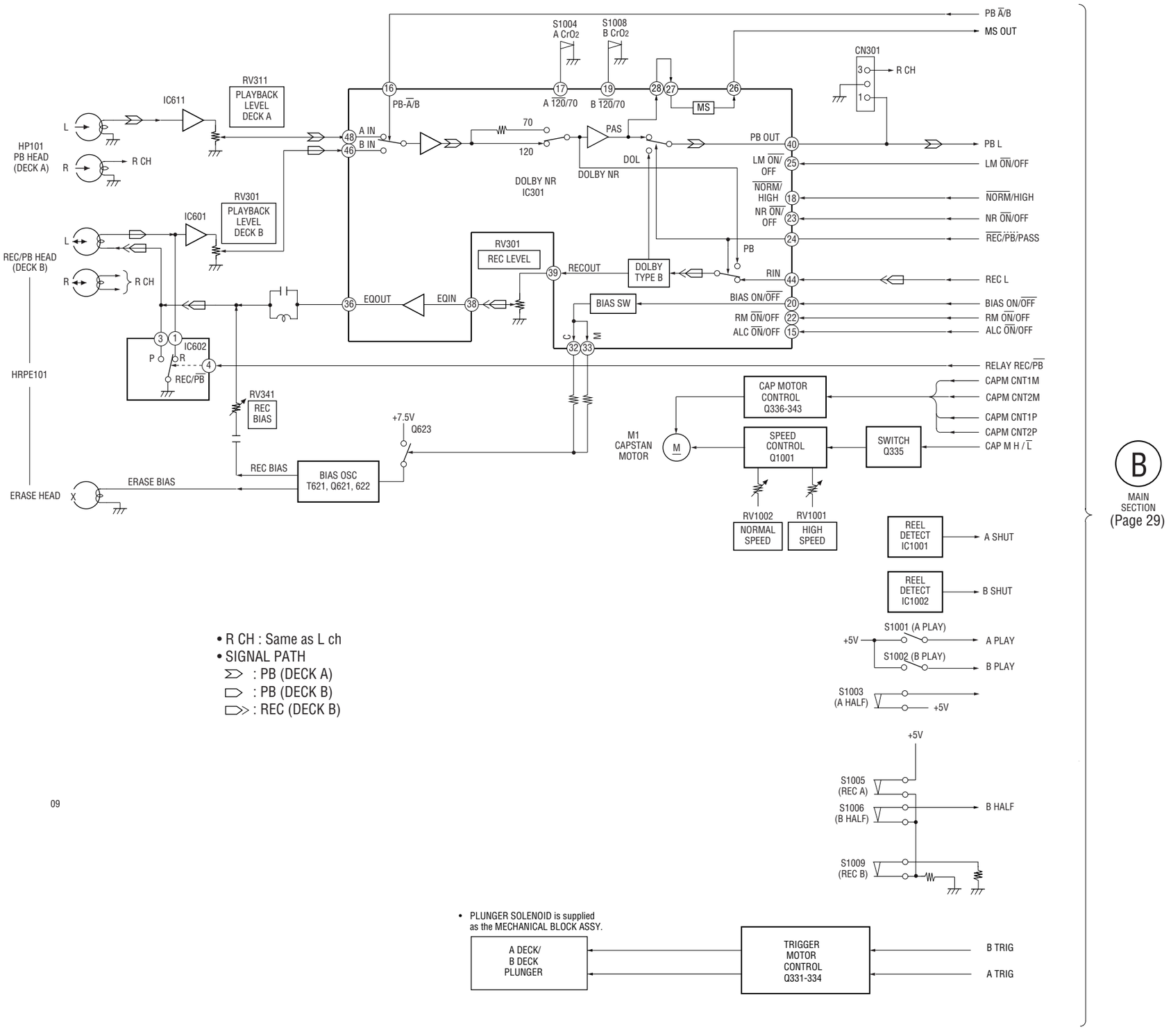
* Note
When replacing IC502, refer to “IC502 of video Board” in “Service Note” (page 13).



- R CH: Same as L ch
- SIGNAL PATH
  - : CD
  - : CHROMA
  - :Y
  - : VIDEO

09

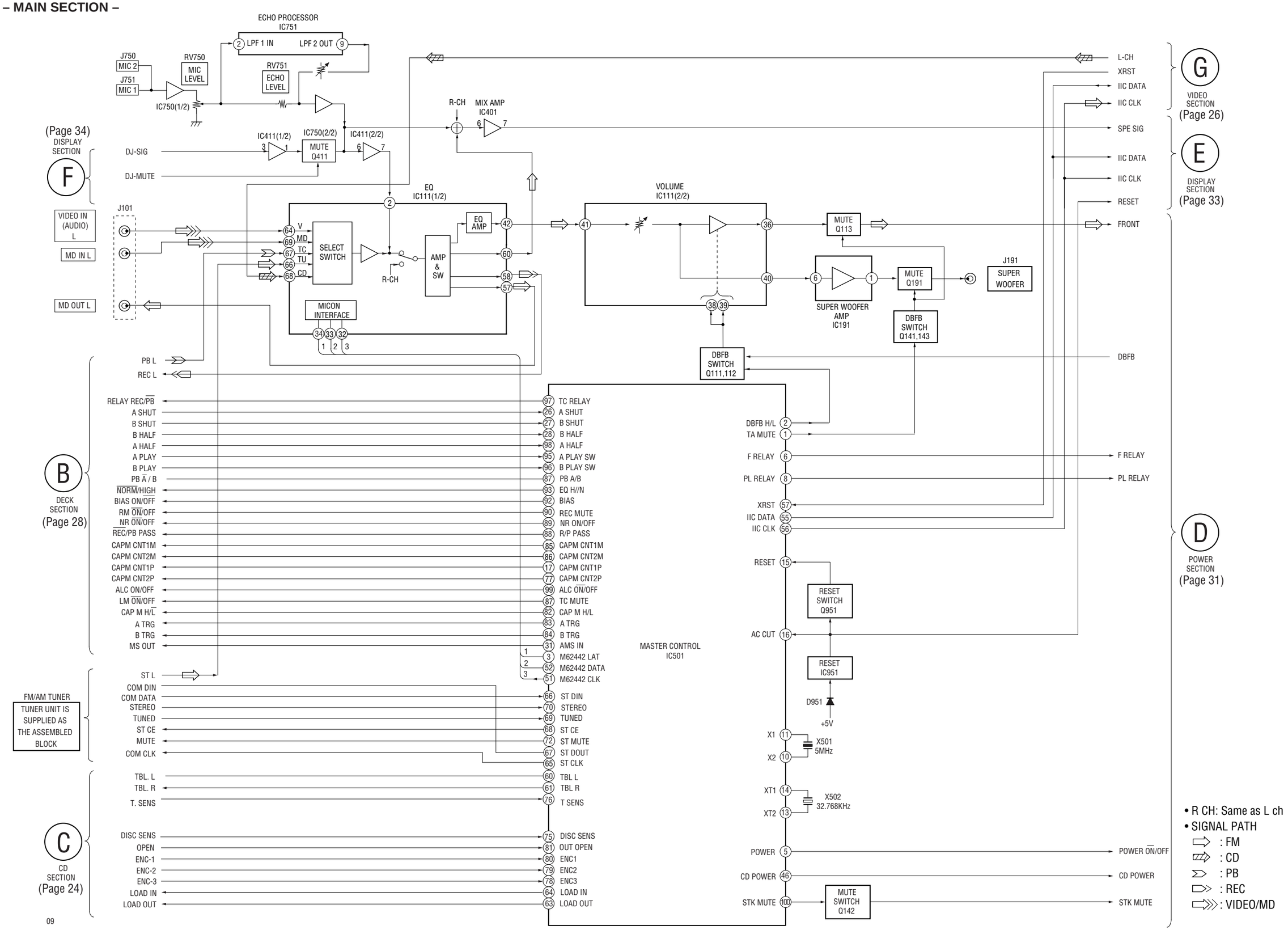
– DECK SECTION –



• R CH : Same as L ch
• SIGNAL PATH
  : PB (DECK A)
  : PB (DECK B)
  : REC (DECK B)

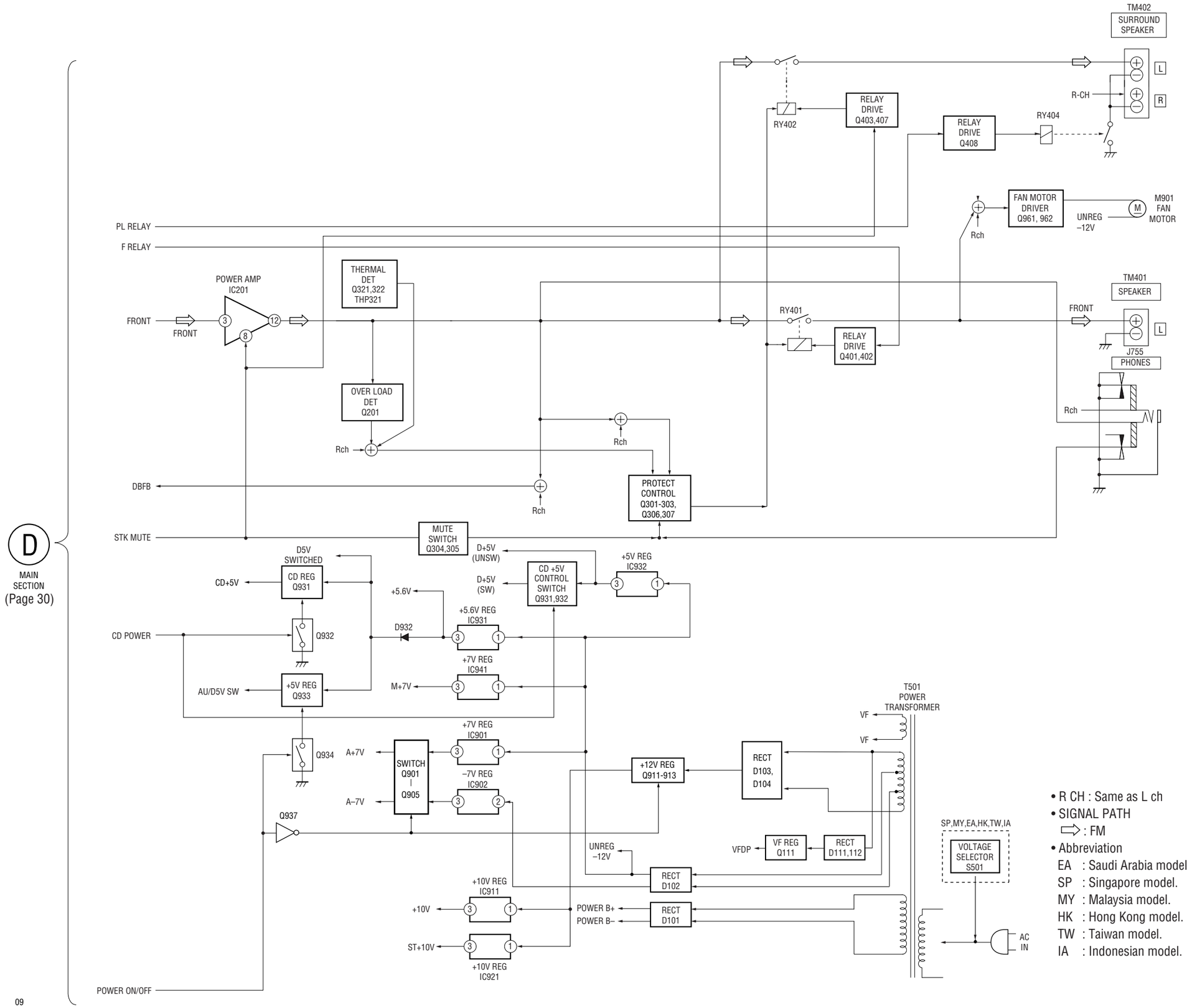
09

– MAIN SECTION –



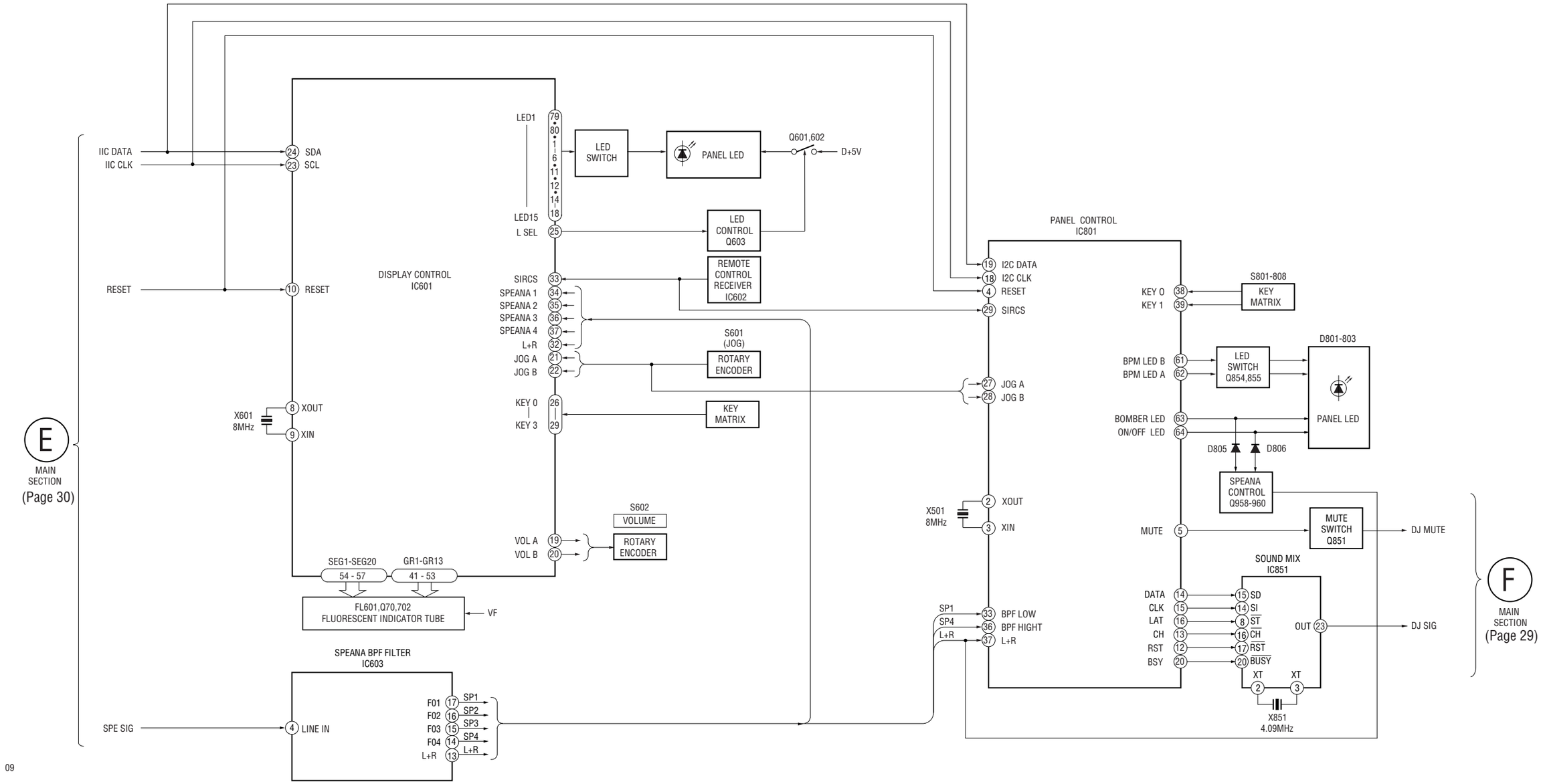
09

– POWER SECTION –



- R CH : Same as L ch
- SIGNAL PATH
  ⇨ : FM
- Abbreviation
  EA : Saudi Arabia model.
  SP : Singapore model.
  MY : Malaysia model.
  HK : Hong Kong model.
  TW : Taiwan model.
  IA : Indonesian model.

– DISPLAY SECTION –



09

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- B + : B+ Line.
- B − : B– Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - : FM
  - : VIDEO/MD
  - : PB (DECK A)
  - : PB (DECK B)
  - : REC (DECK B)
  - : CHROMA
  - : Y
  - : VIDEO
  - : CD
  - : digital out
- Abbreviation
  - EA : Saudi Arabia model.
  - SP : Singapore model.
  - MY : Malaysia model.
  - HK : Hong Kong model.
  - TW : Taiwan model.
  - IA : Indonesian model.

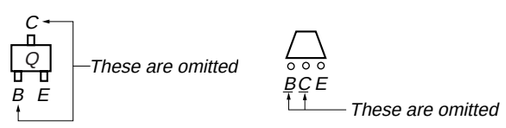
For printed wiring boards.

Note:

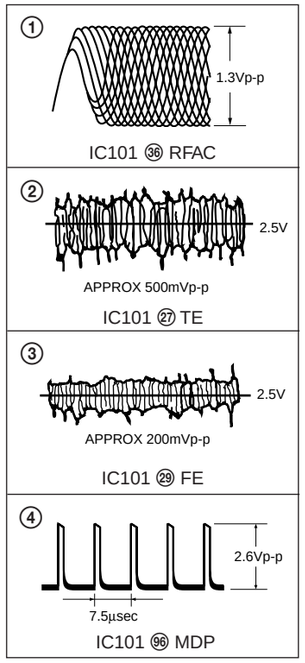
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ○ : Through hole.
- ▒▒ : Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

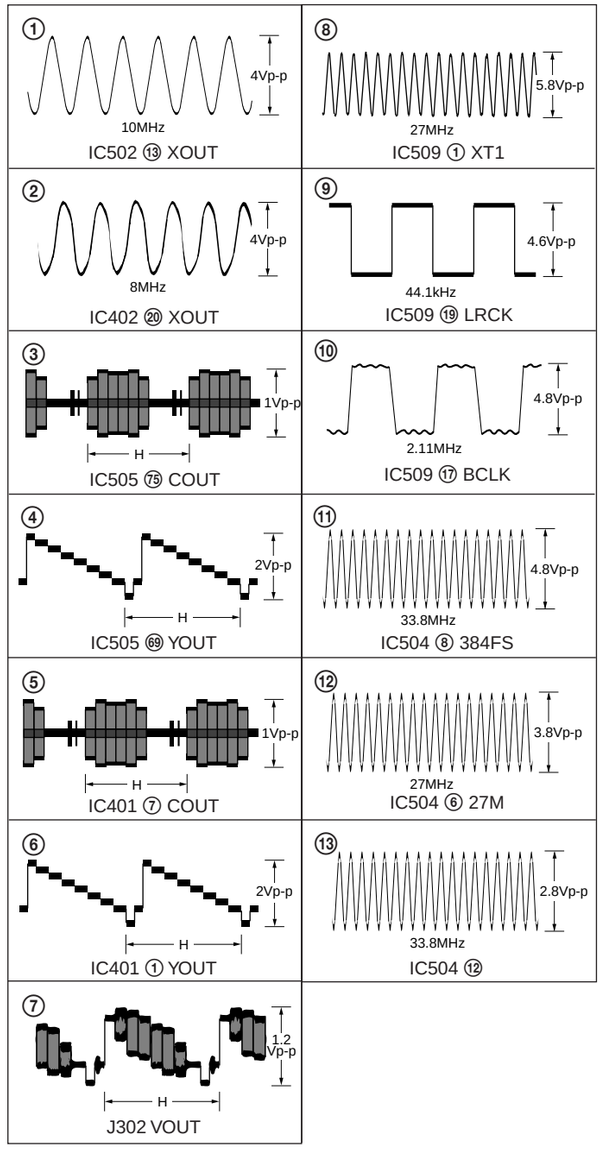
- **Indication of transistor**



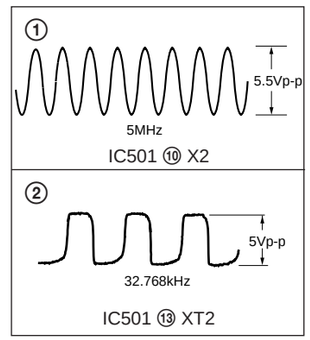
WAVEFORMS
– CD SECTION –



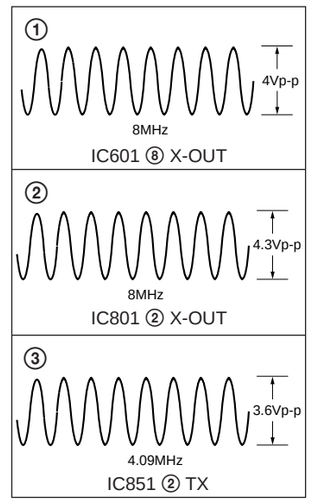
– VIDEO SECTION –



– MAIN SECTION –

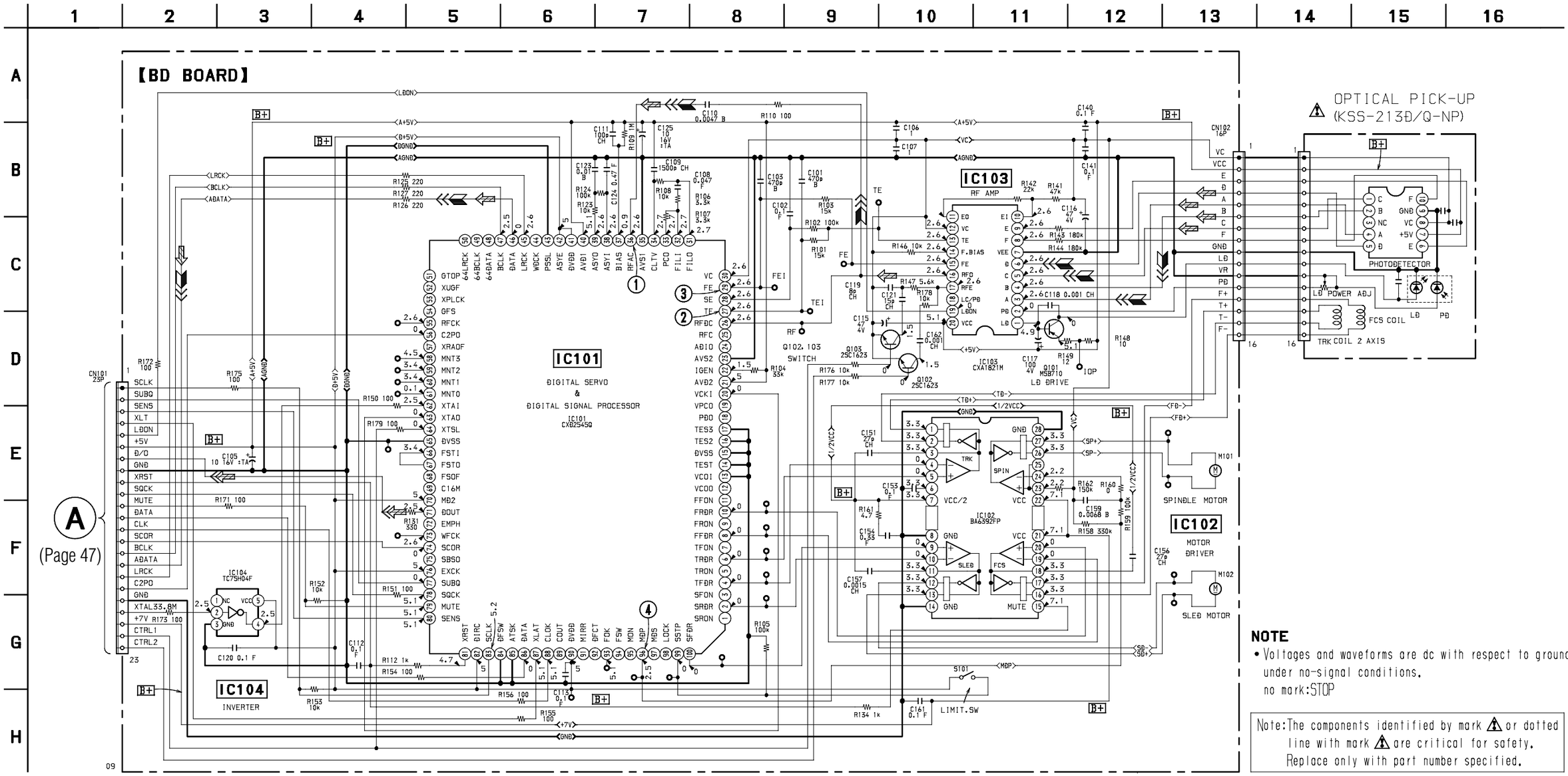


– DISPLAY SECTION –



8-3. SCHEMATIC DIAGRAM – CD SECTION –

- **See page 35 for Waveforms.**
- **See page 85 for IC Block Diagrams.**



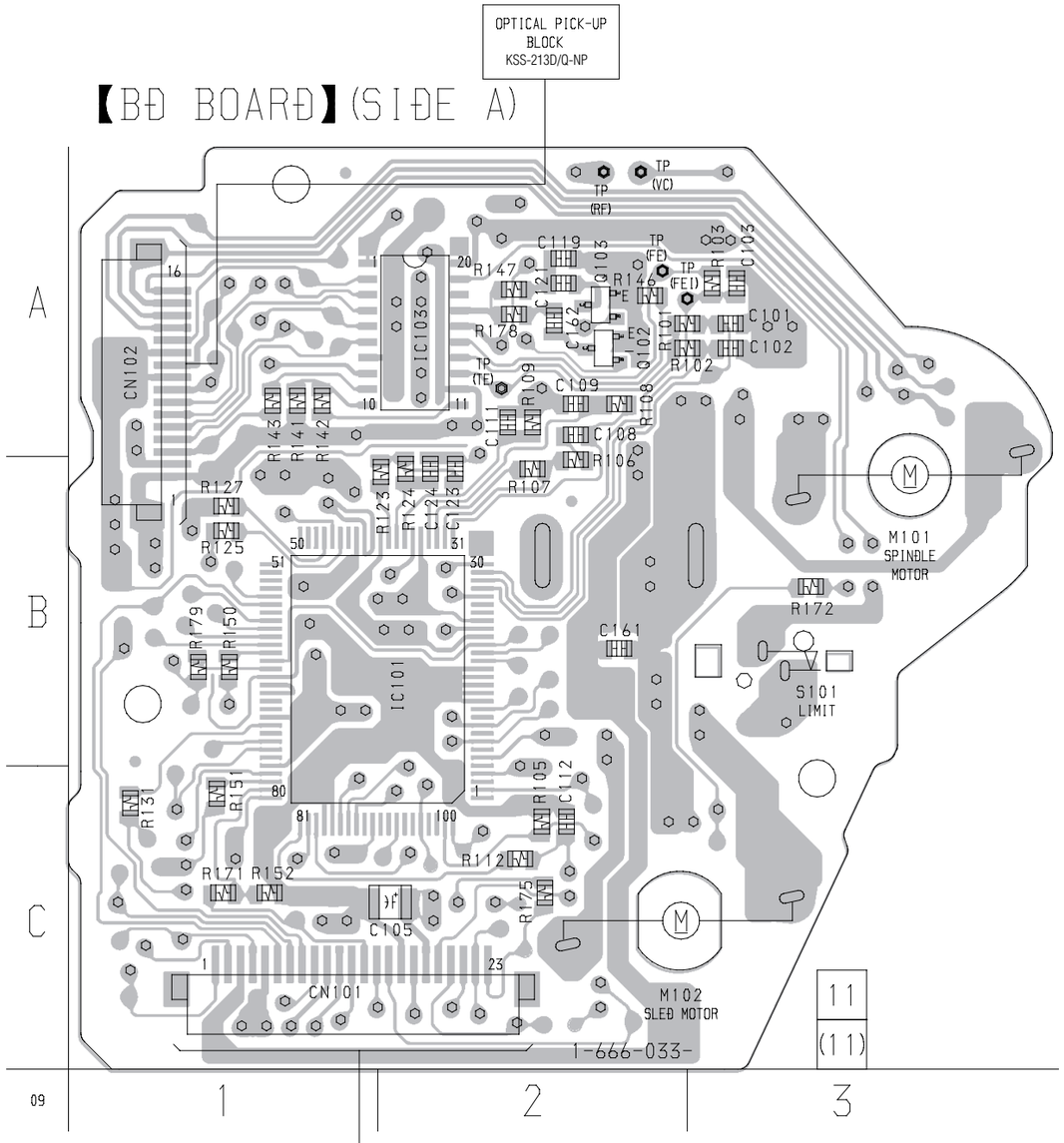
NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:STOP

Note:The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

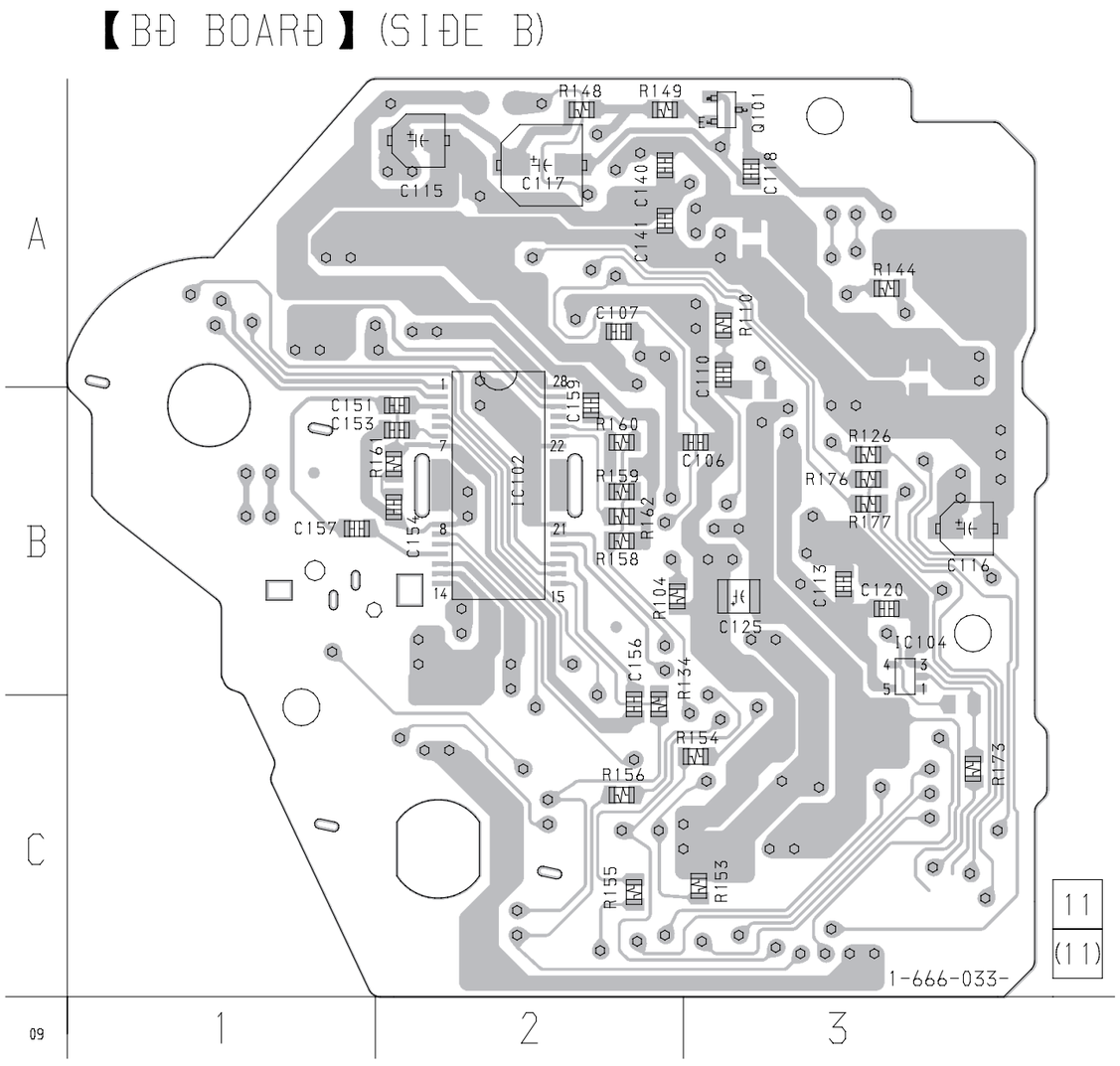
8-4. PRINTED WIRING BOARD – CD SECTION –

• See page 22 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location
IC101	B-1
IC103	A-2
Q102	A-2
Q103	A-2

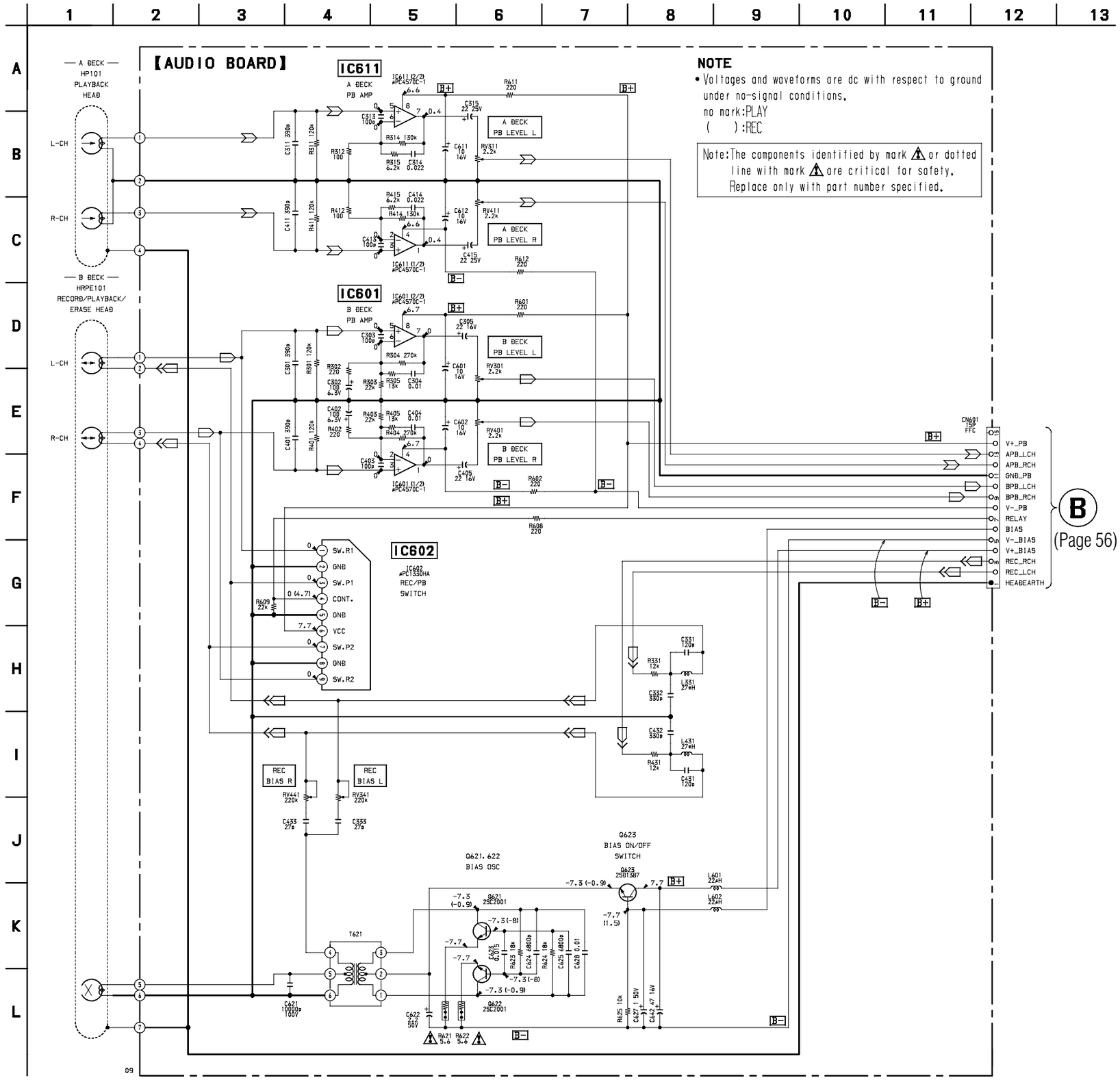


• **Semiconductor Location**

Ref. No.	Location
IC102	B-2
IC104	B-3
Q101	A3

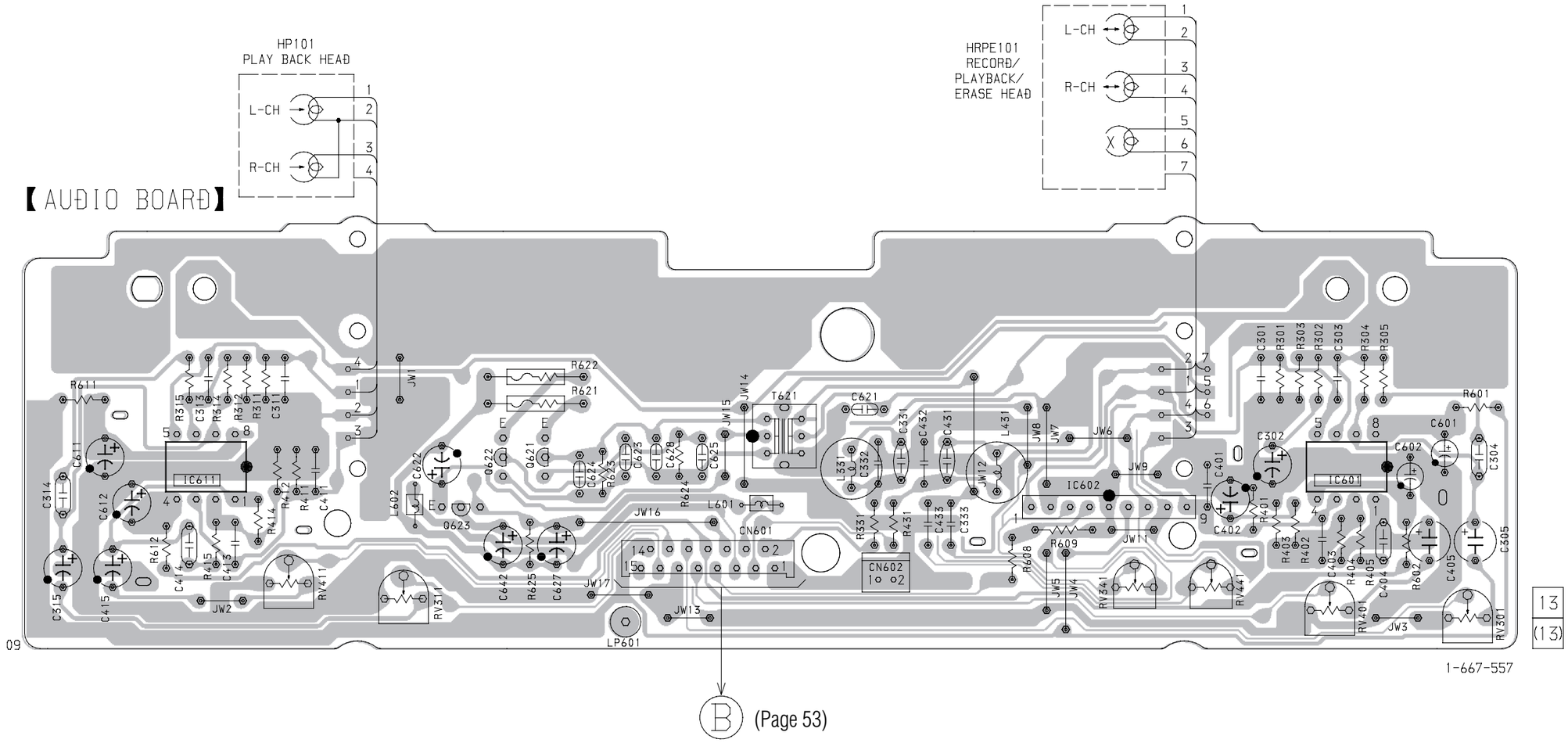
8-5. SCHEMATIC DIAGRAM – DECK SECTION –

• See page 86 for IC Block Diagrams.



8-6. PRINTED WIRING BOARD – DECK SECTION –

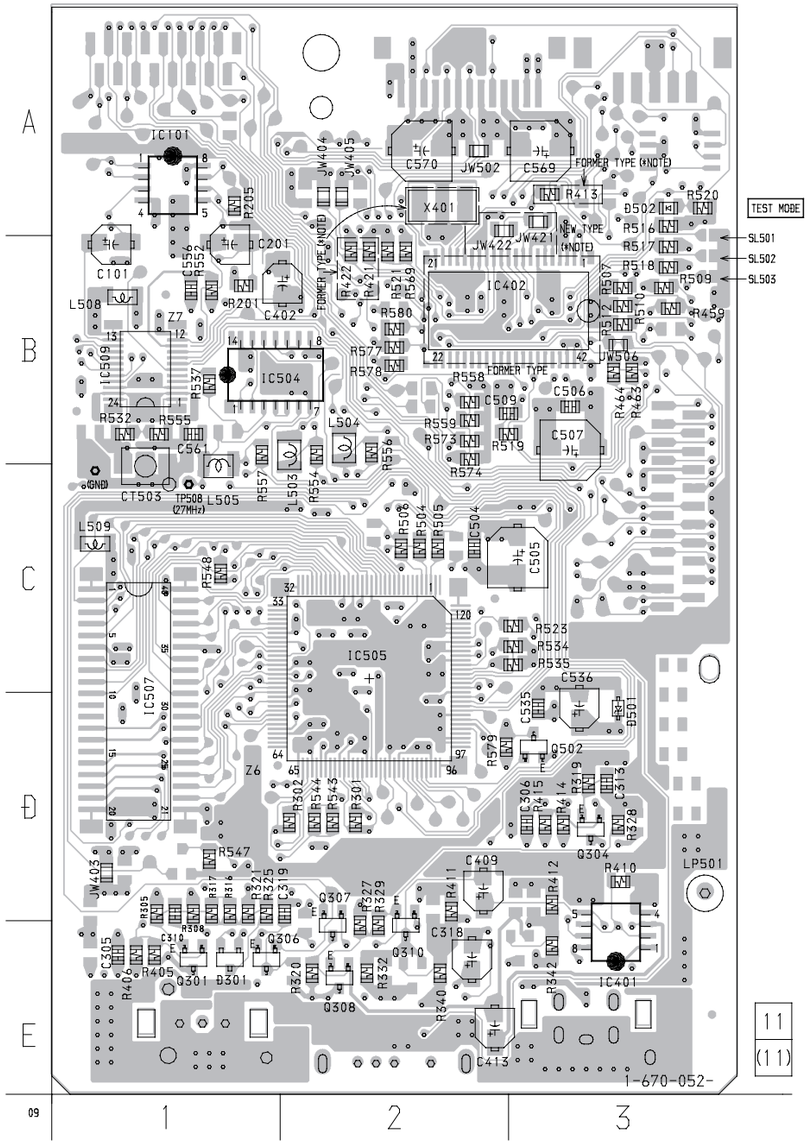
• See page 22 for Circuit Boards Location.



8-7. PRINTED WIRING BOARD – VIDEO SECTION –

• See page 22 for Circuit Boards Location.

【VIÐEO BOARÐ】(SIÐE A)



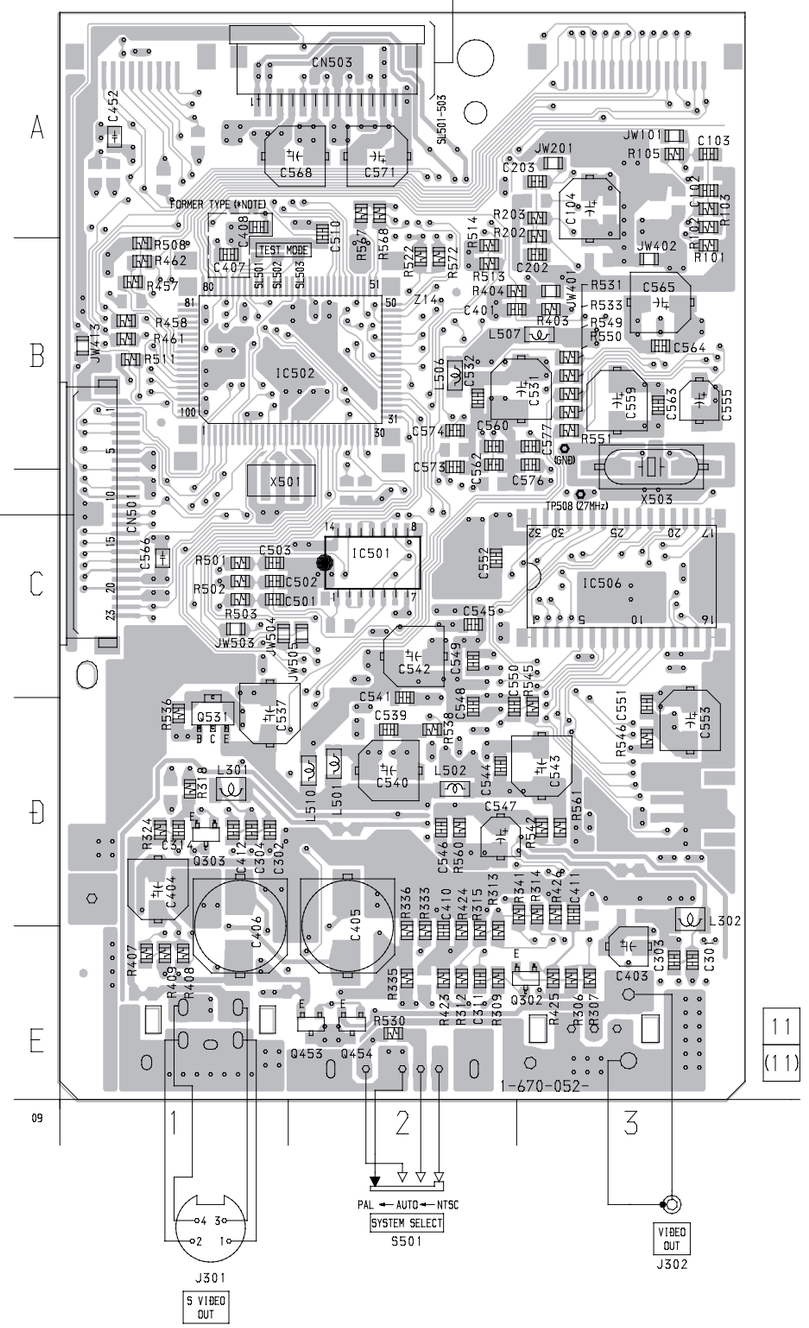
• **Semiconductor Location**

Ref. No.	Location
D301	E-1
D501	D-3
D502	A-3
IC101	A-1
IC401	E-3
IC402	B-2
IC504	A-1
IC505	C-2
IC507	C-1
IC509	B-1
Q301	E-1
Q304	D-3
Q306	E-1
Q307	E-2
Q308	E-2
Q310	E-2
Q502	D-3

* Note
When replacing IC502, refer to “IC502 of video Board” in “Service Note” (page 13).

(Page 54)

【VIÐEO BOARÐ】(SIÐE B)



(Page 39)

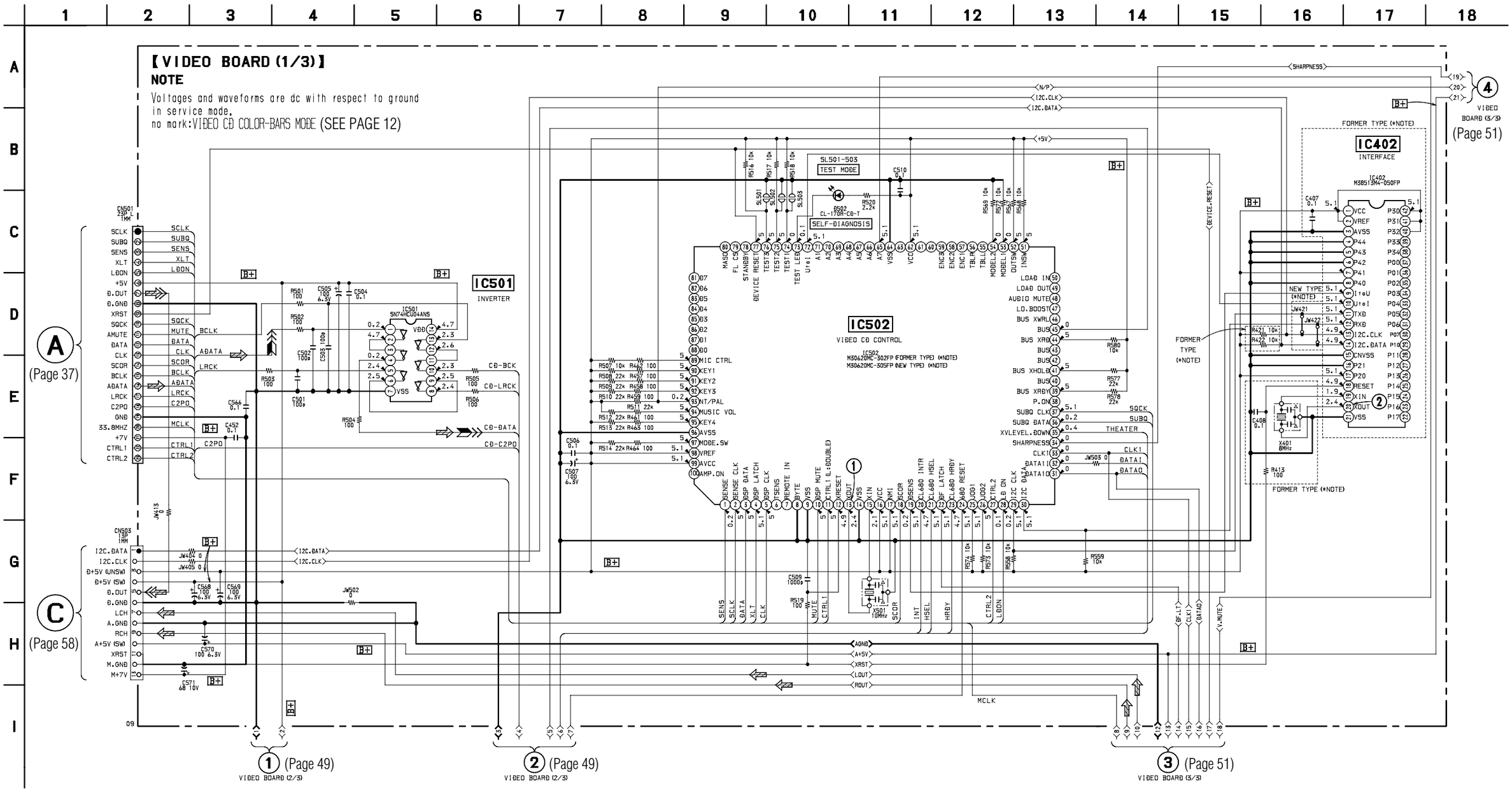
• **Semiconductor Location**

Ref. No.	Location
IC501	C-2
IC502	B-1
IC506	C-3
Q302	E-3
Q303	D-1
Q453	E-2
Q454	E-2
Q531	D-1

8-8. SCHEMATIC DIAGRAM – VIDEO (1/3) SECTION –

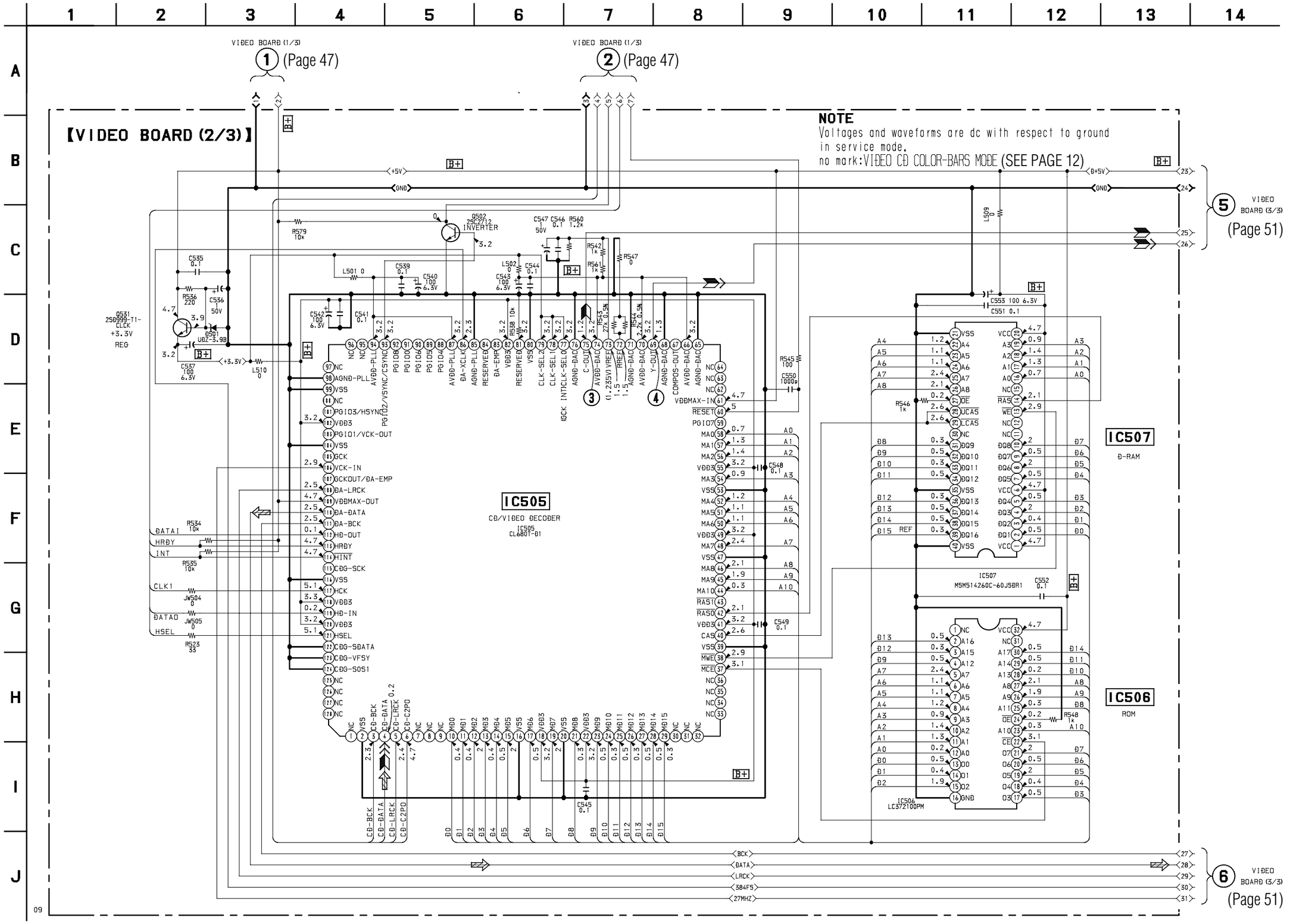
- **See page 36 for Waveforms.**
- **See page 89 for IC Pin Functions.**

* Note
When replacing IC502, refer to "IC502 of video Board" in "Service Note" (page 13).



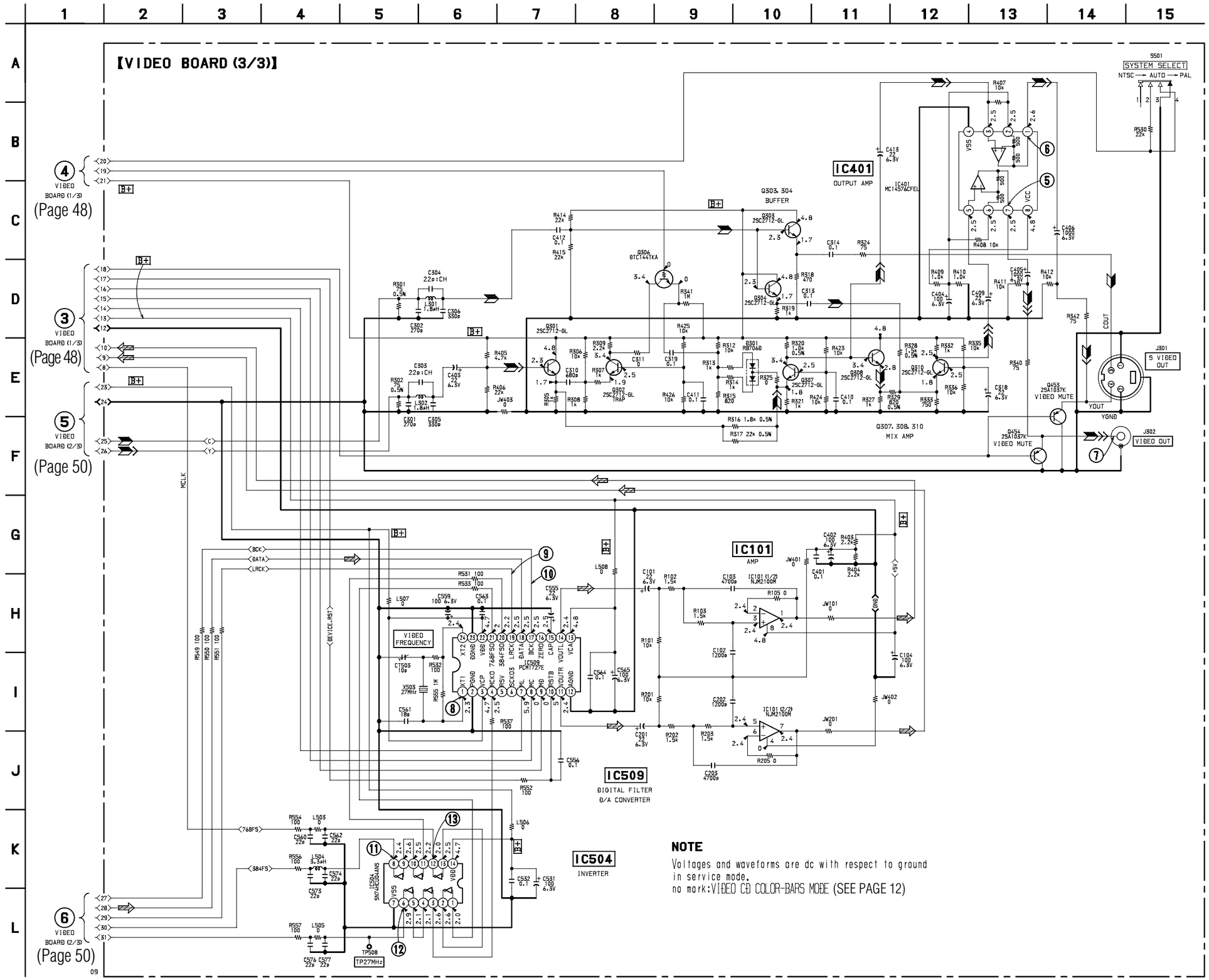
8-9. SCHEMATIC DIAGRAM – VIDEO (2/3) SECTION –

- **See page 36 for Waveforms.**
- **See page 45 for Printed Wiring Board.**
- **See page 94 for IC Pin Functions.**



8-10. SCHEMATIC DIAGRAM – VIDEO (3/3) SECTION –

- See page 36 for Waveforms.
- See page 45 for Printed Wiring Board.

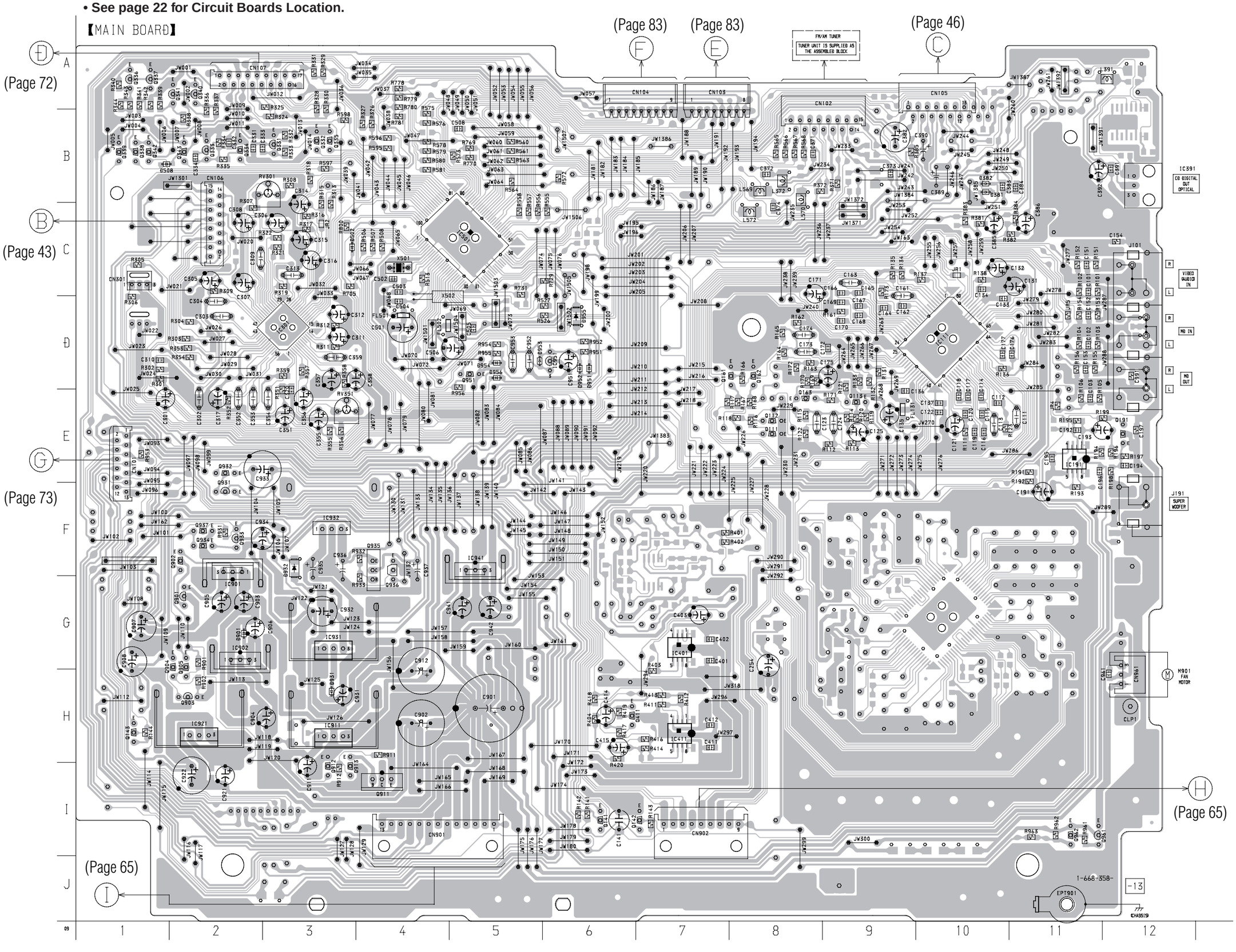


- **Semiconductor Location**

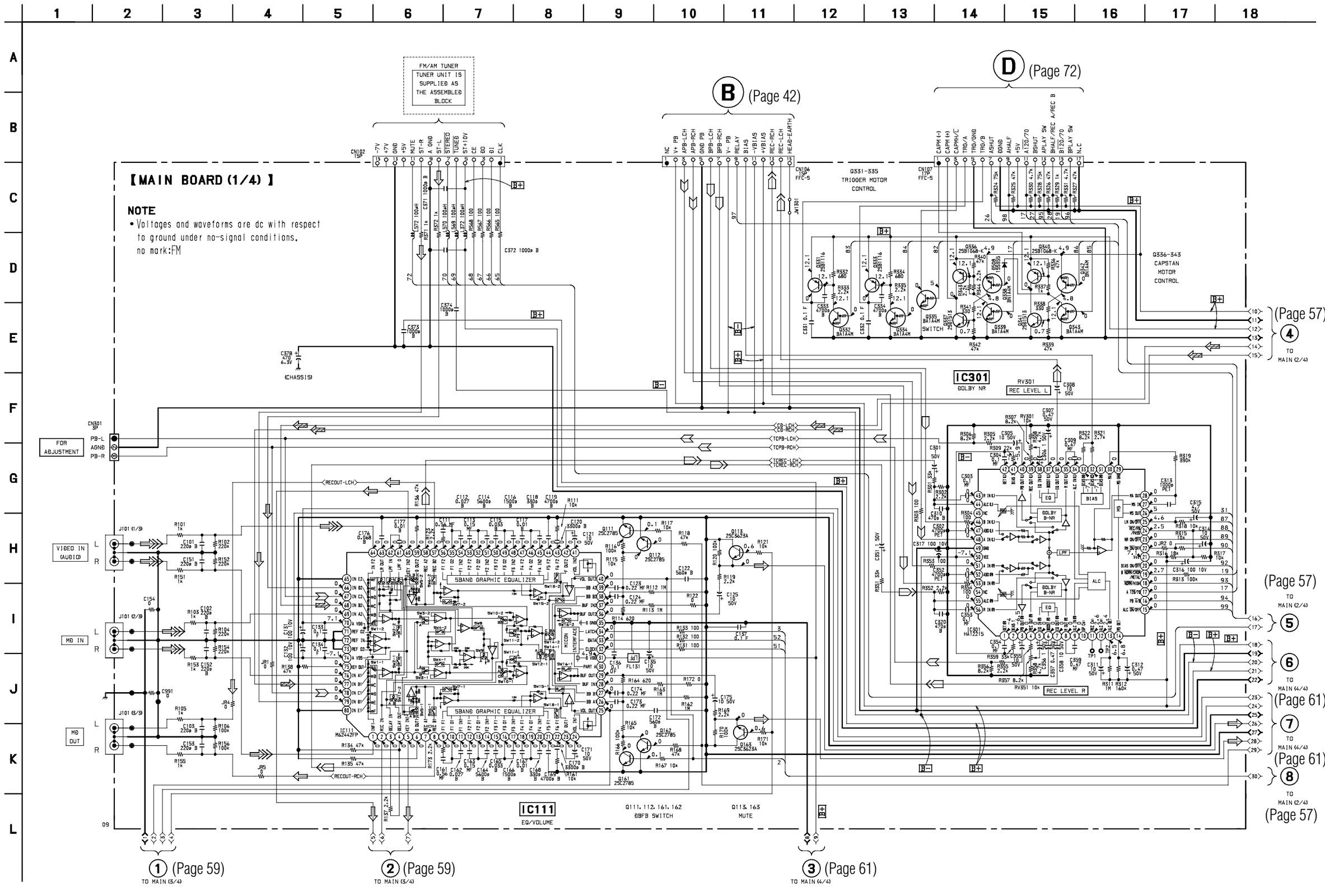
Ref. No.	Location
D502	C-3
D508	B-1
D901	G-2
D931	H-3
D932	F-3
D951	D-6
D952	D-6
D953	D-5
D954	D-5
D955	D-6
D956	D-5
IC111	D-10
IC191	E-11
IC301	D-3
IC391	B-12
IC401	G-7
IC411	H-7
IC501	C-5
IC901	F-2
IC902	G-2
IC911	H-3
IC921	H-2
IC931	G-3
IC932	F-3
IC941	G-5
IC951	D-6
Q111	E-8
Q112	E-8
Q113	E-9
Q141	I-6
Q142	I-7
Q143	H-1
Q161	D-8
Q162	D-8
Q163	E-8
Q191	E-12
Q331	B-3
Q332	B-3
Q333	B-2
Q334	B-2
Q335	B-3
Q336	A-1
Q337	A-1
Q338	B-1
Q339	B-1
Q340	A-2
Q341	A-2
Q342	B-1
Q343	B-2
Q411	H-6
Q901	G-2
Q902	F-2
Q903	H-2
Q904	G-2
Q905	G-2
Q911	I-4
Q912	H-3
Q913	H-3
Q931	F-2
Q932	E-2
Q933	F-2
Q934	F-2
Q935	F-4
Q936	G-4
Q937	F-2
Q951	D-5
Q961	I-11
Q962	I-11

8-11. PRINTED WIRING BOARD – MAIN SECTION –

• See page 22 for Circuit Boards Location.

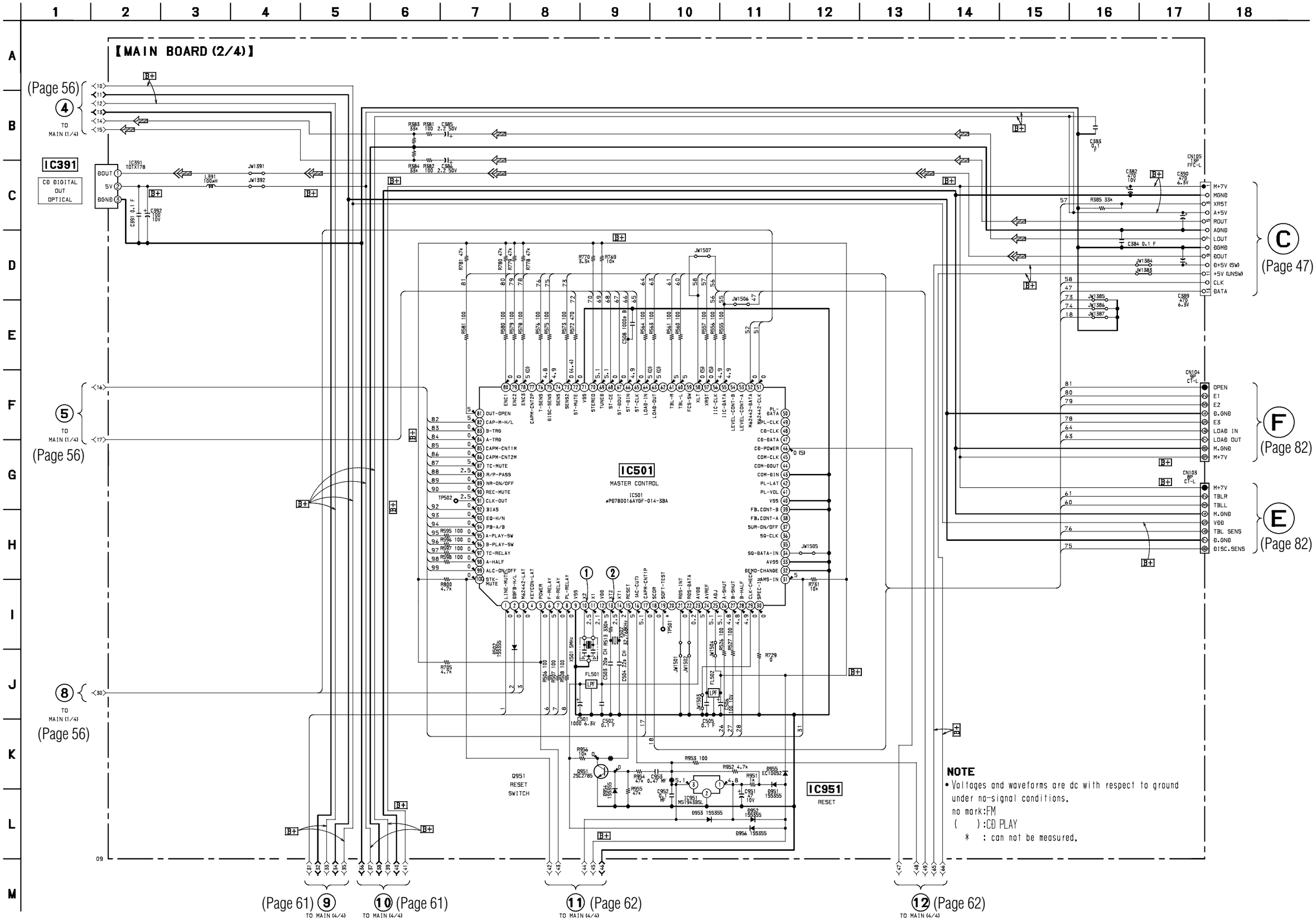


8-12. SCHEMATIC DIAGRAM – MAIN (1/4) SECTION –


【MAIN BOARD (1/4)】
NOTE
• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark:FM
FM/AM TUNER
TUNER UNIT IS SUPPLIED AS THE ASSEMBLED BLOCK
B (Page 42)
D (Page 72)
Q331-335 TRIGGER MOTOR CONTROL
Q336-343 CAPSTAN MOTOR CONTROL
IC301 DOLBY NR
RV301 REC LEVEL L
REC LEVEL R
IC111 EQ/VOLUME
5BAND GRAPHIC EQUALIZER
Q111, 112, 161, 162 ØBFB SWITCH
Q113, 163 MUTE
FOR ADJUSTMENT
VIDEO IN (AUDIO)
MD IN
MD OUT
(Page 57) 4 TO MAIN (2/4)
(Page 57) 5 TO MAIN (2/4)
(Page 61) 6 TO MAIN (4/4)
(Page 61) 7 TO MAIN (4/4)
(Page 57) 8 TO MAIN (2/4)
1 (Page 59) TO MAIN (3/4)
2 (Page 59) TO MAIN (3/4)
3 (Page 61) TO MAIN (4/4)

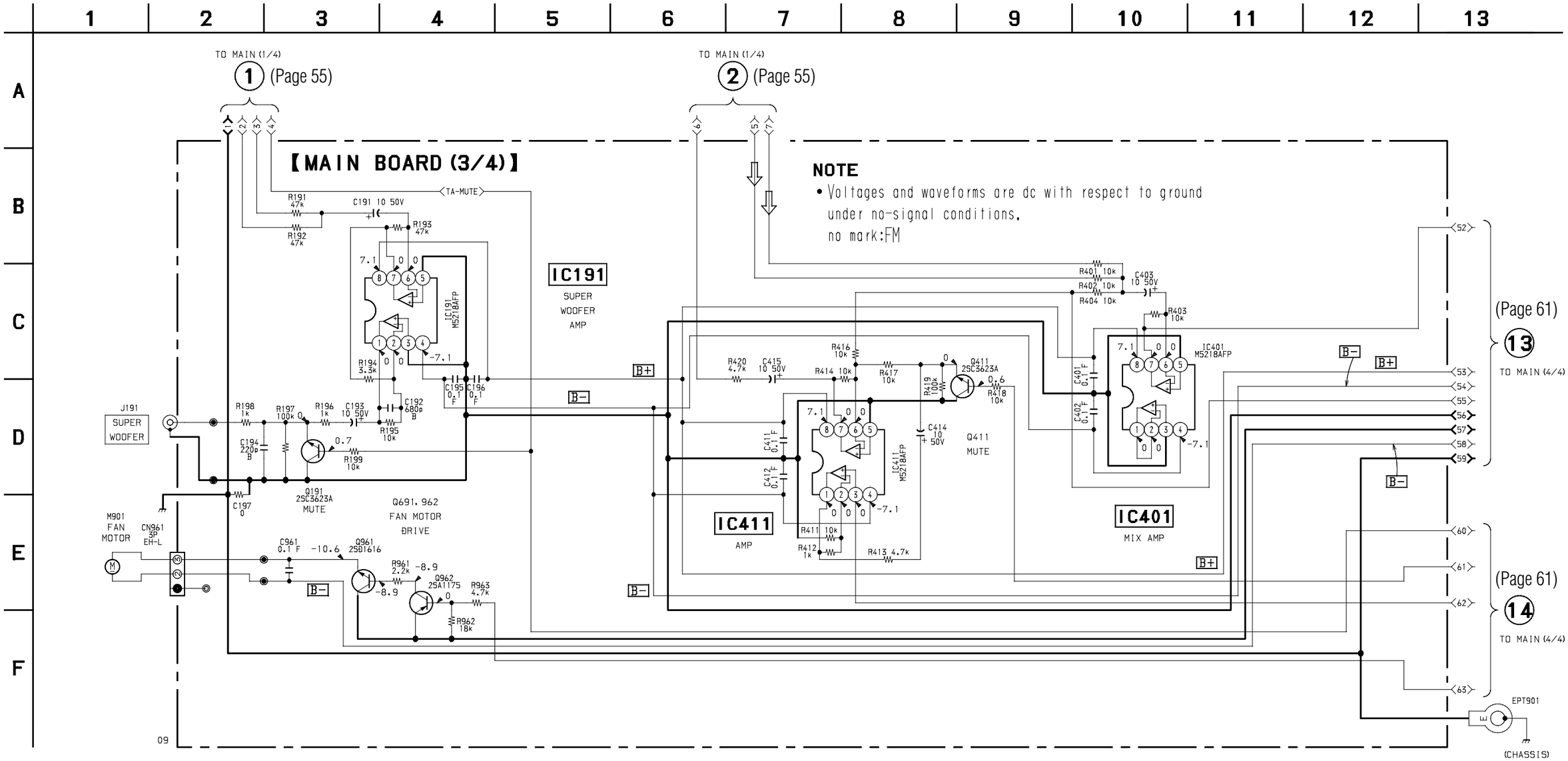
8-13. SCHEMATIC DIAGRAM – MAIN (2/4) SECTION –

- See page 36 for Waveforms.
- See page 53 for Printed Wiring Board.
- See page 89 for IC Pin Functions.



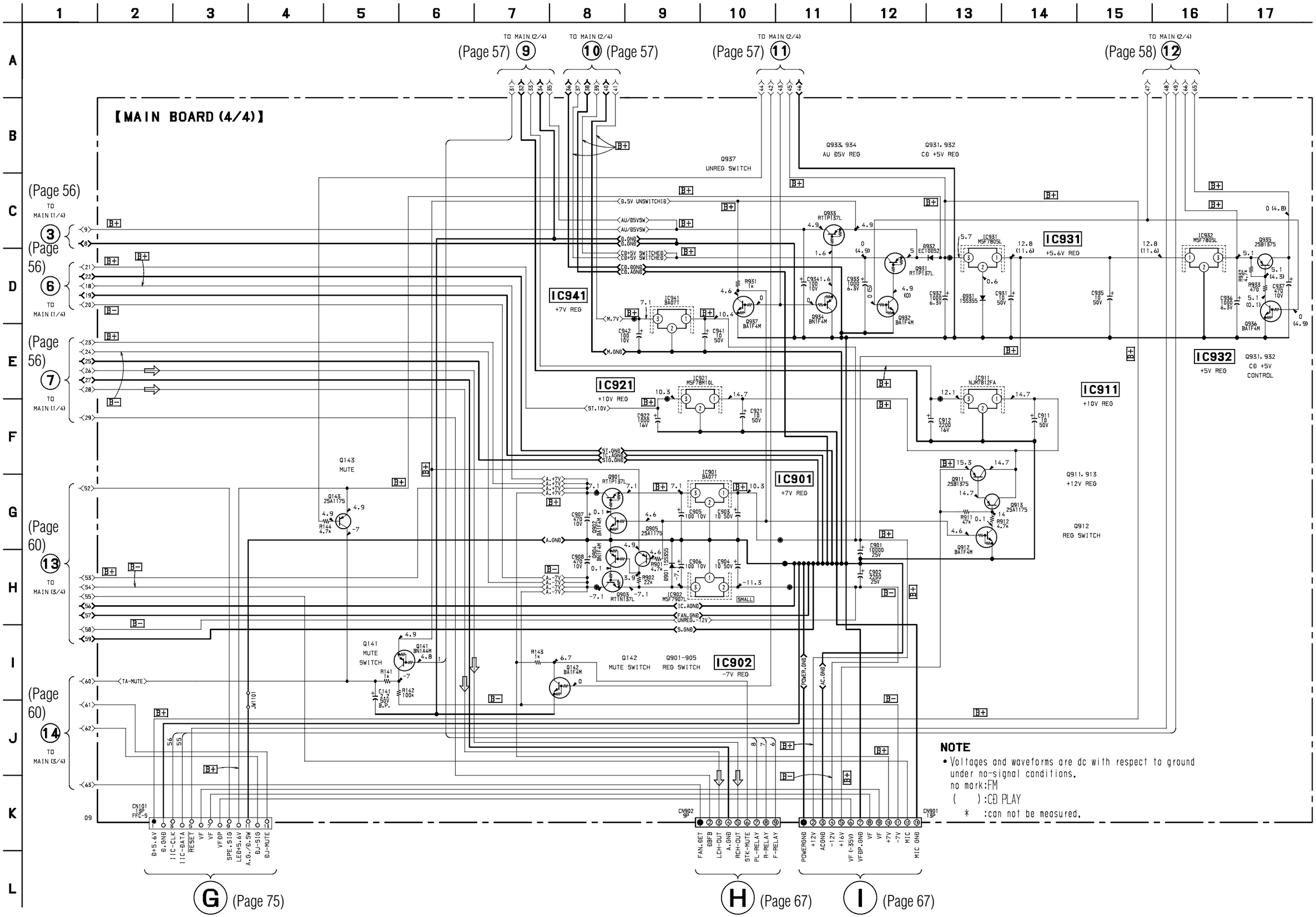
8-14. SCHEMATIC DIAGRAM – MAIN (3/4) SECTION –

• See page 53 for Printed Wiring Board.



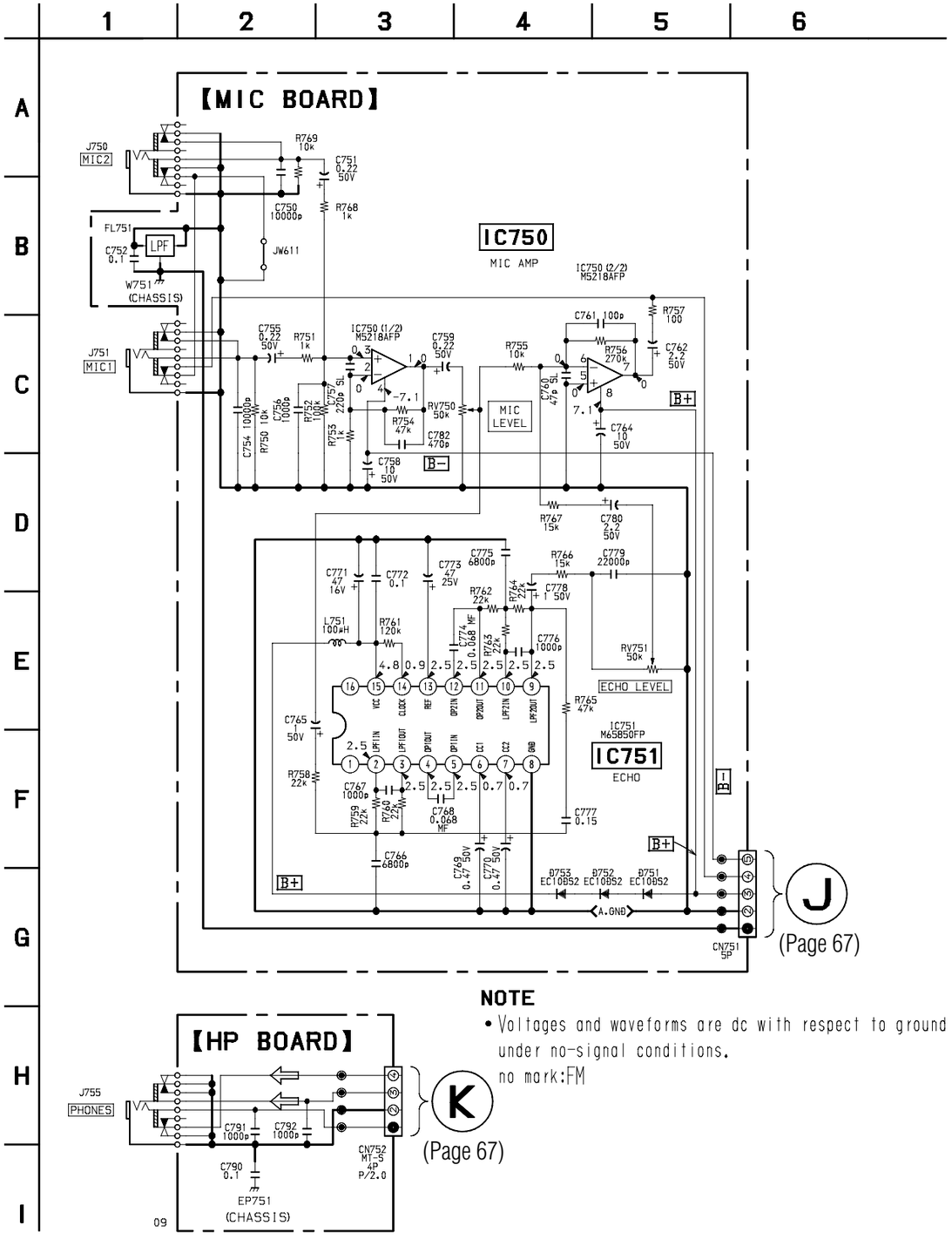
8-15. SCHEMATIC DIAGRAM – MAIN (4/4) SECTION –

• See page 53 for Printed Wiring Board.


【MAIN BOARD (4/4)】
TO MAIN (2/4) (Page 57) 9
TO MAIN (2/4) 10 (Page 57)
TO MAIN (2/4) (Page 57) 11
TO MAIN (2/4) (Page 58) 12
(Page 56) TO MAIN (1/4) 3
(Page 56) 6 TO MAIN (1/4)
(Page 56) 7 TO MAIN (1/4)
(Page 60) 13 TO MAIN (3/4)
(Page 60) 14 TO MAIN (3/4)
IC941 +7V REG
IC921 +10V REG
IC901 +7V REG
IC902 -7V REG
IC931 +5.6V REG
IC911 +10V REG
IC932 +5V REG
Q933, 934 AU D5V REG
Q931, 932 CD +5V REG
Q937 UNREG SWITCH
Q911, 913 +12V REG
Q912 REG SWITCH
Q143 MUTE
Q141 MUTE SWITCH
Q142 MUTE SWITCH
Q901-905 REG SWITCH
CN101 15P FFC-S
CN902 9P
CN901 13P
G (Page 75)
H (Page 67)
I (Page 67)
NOTE
• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark:FM
( ):CD PLAY
* :can not be measured.

8-16. SCHEMATIC DIAGRAM – MIC/HP SECTION –

• See page 86 for IC Block Diagrams.

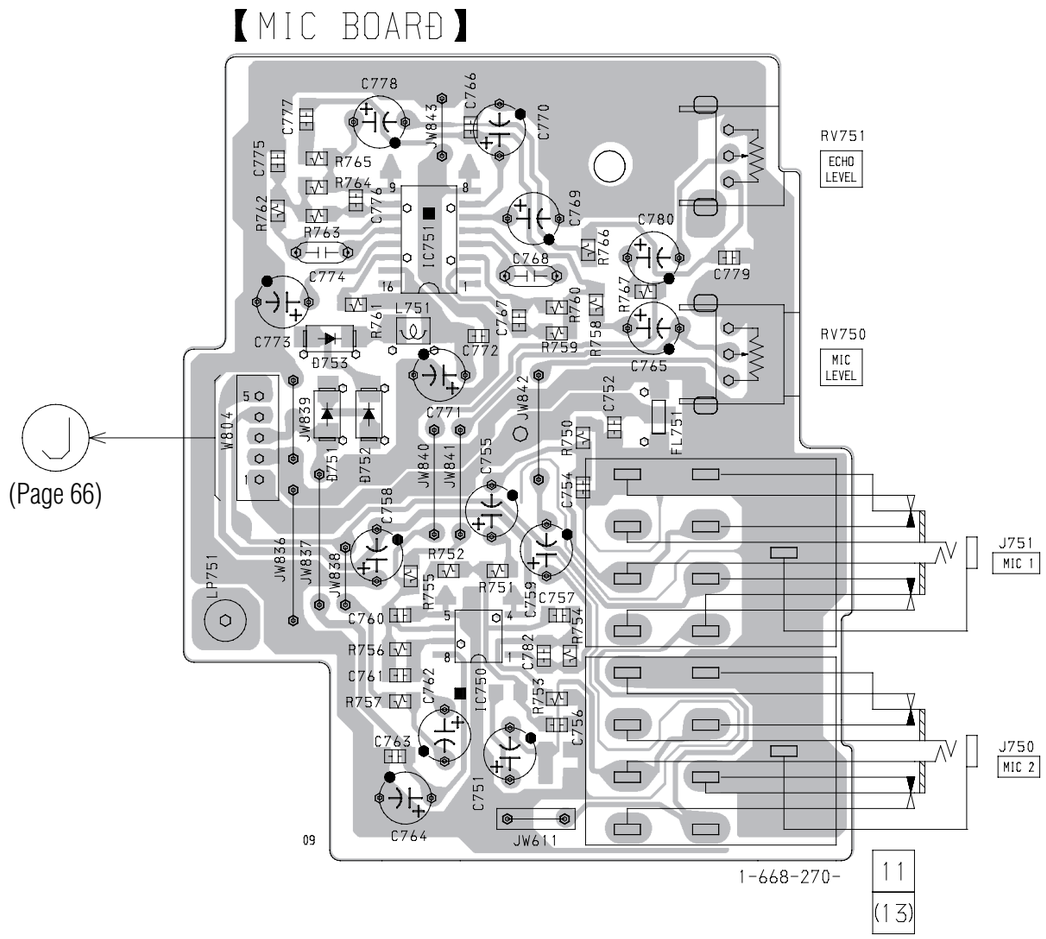


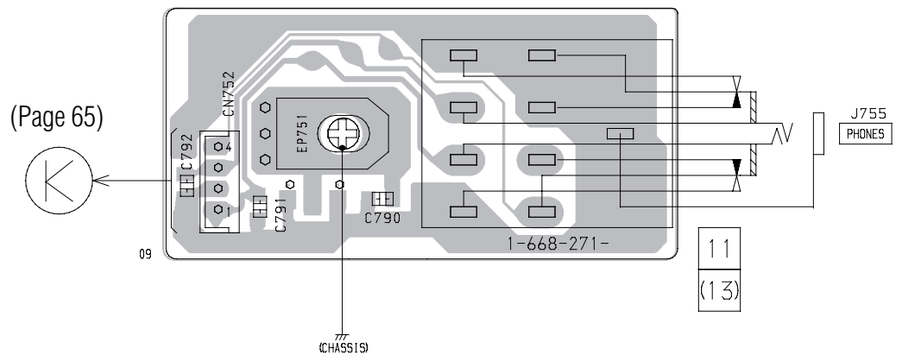
NOTE

• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark:FM

8-17. PRINTED WIRING BOARD – MIC/HP SECTION –

• See page 22 for Circuit Boards Location.



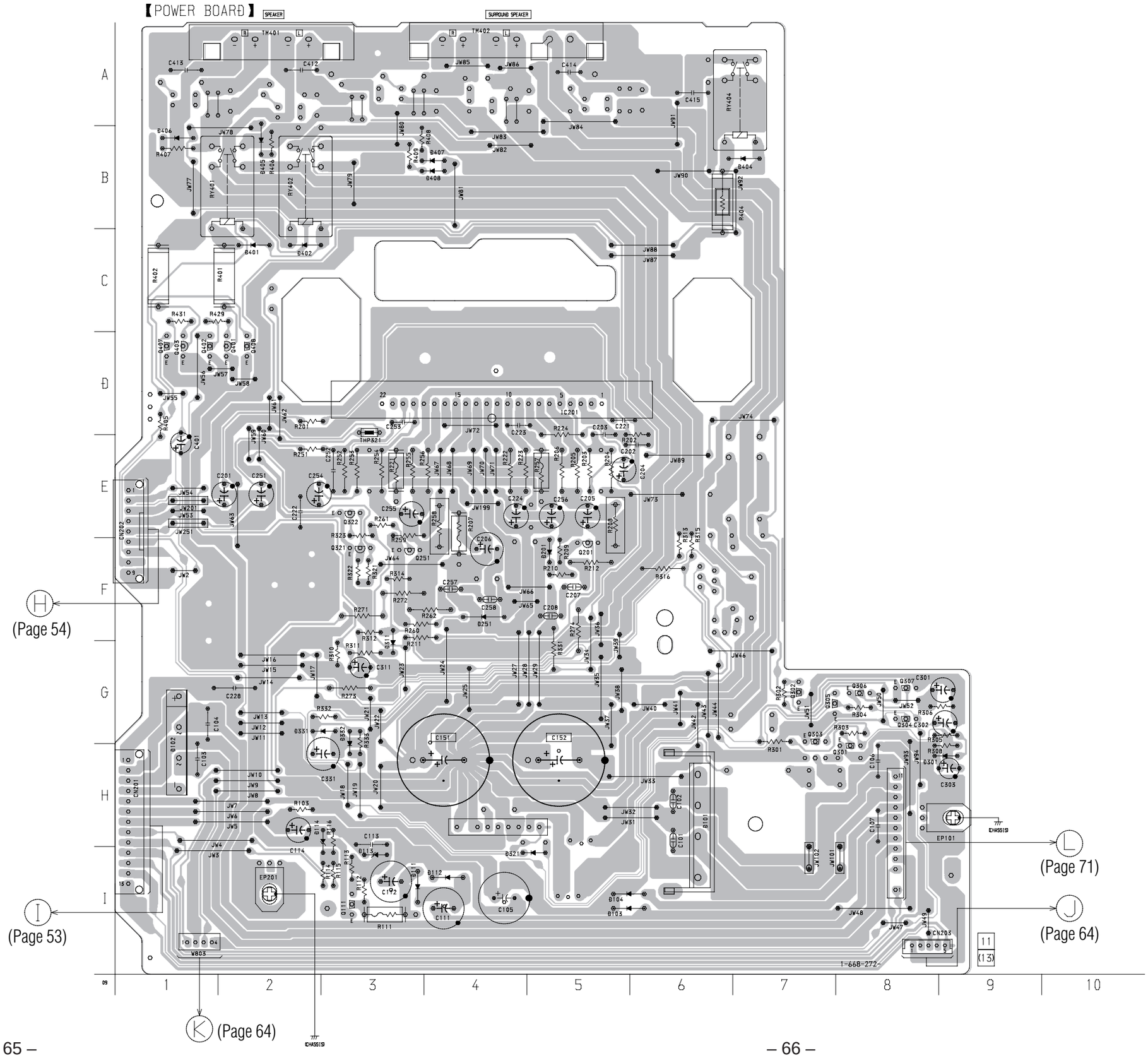


8-18. PRINTED WIRING BOARD – POWER AMP SECTION –

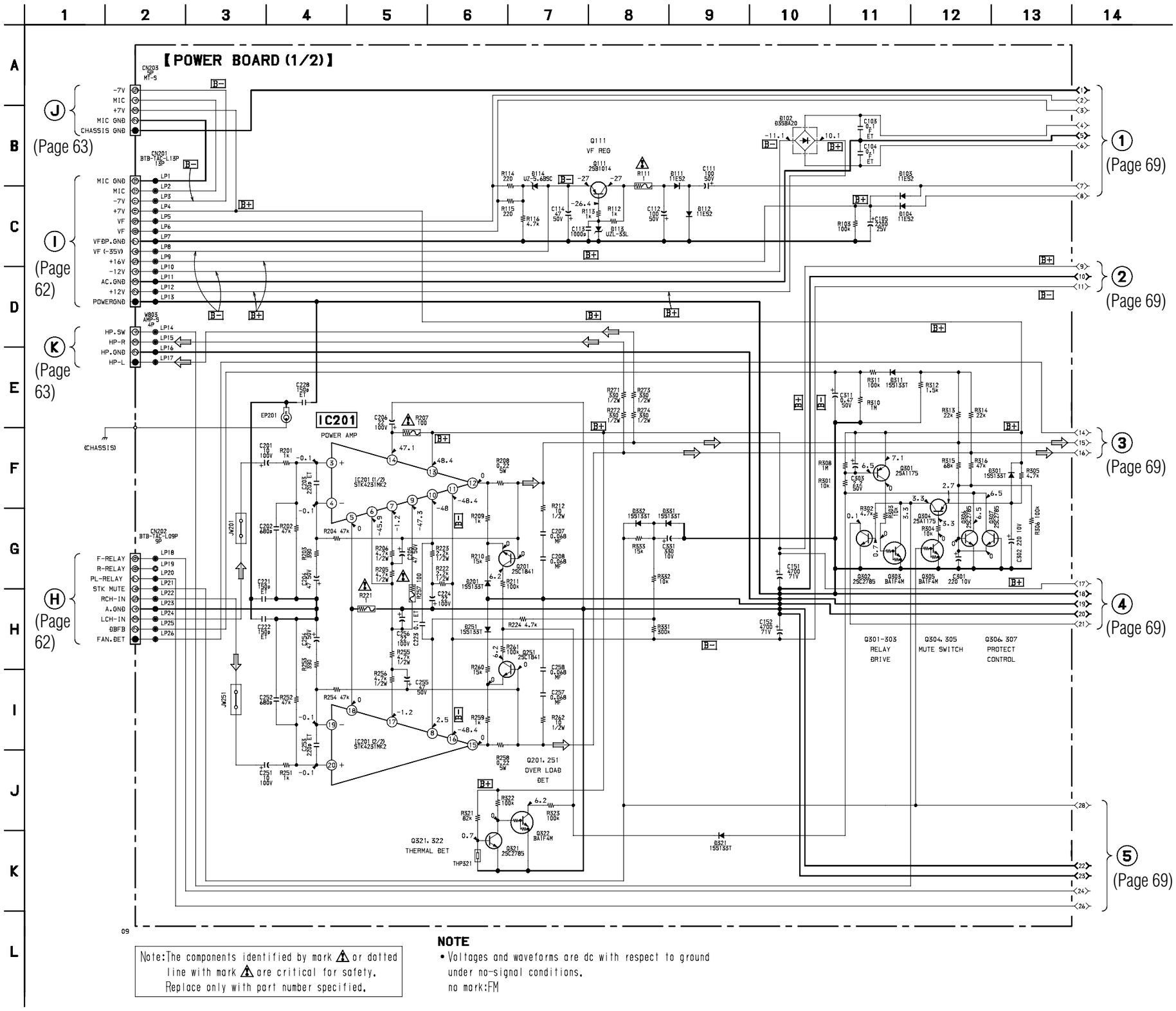
• See page 22 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D101	H-6
D102	H-1
D103	I-5
D104	I-5
D111	I-3
D112	I-4
D113	I-3
D114	I-3
D201	F-5
D251	F-4
D301	H-9
D311	G-3
D321	I-5
D331	H-3
D332	H-3
D401	C-2
D402	C-2
D404	B-7
D405	B-2
D406	B-1
D407	B-4
D408	B-4
IC201	D-5
Q111	I-3
Q201	F-5
Q251	F-3
Q301	H-8
Q302	G-7
Q303	H-7
Q304	G-8
Q305	G-7
Q306	G-8
Q307	G-8
Q321	F-3
Q322	E-3
Q401	D-2
Q402	D-1
Q403	D-1
Q407	D-1
Q408	D-2



8-19. SCHEMATIC DIAGRAM – POWER AMP SECTION –



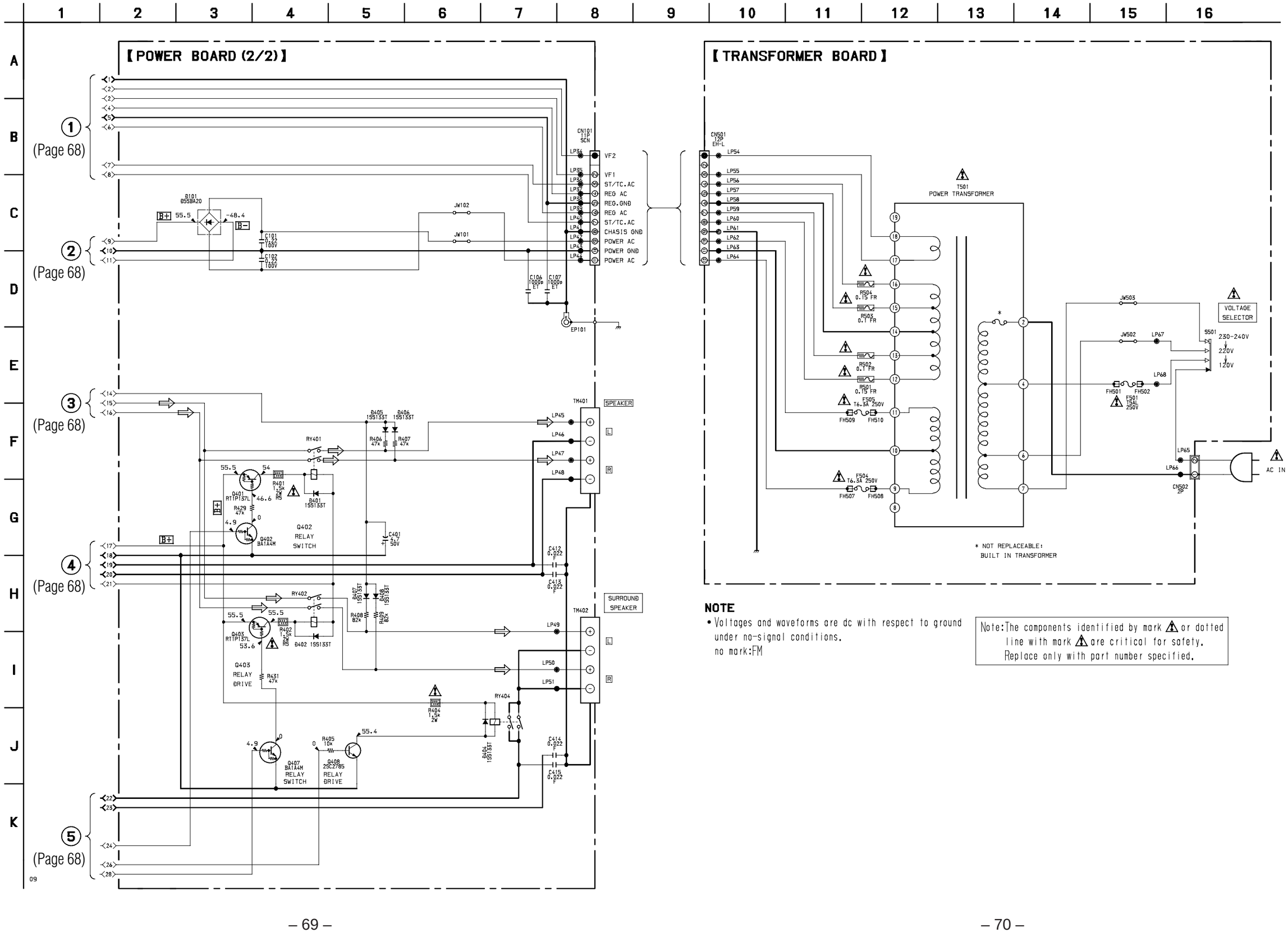
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: FM

8-20. SCHEMATIC DIAGRAM – TRANSFORMER SECTION –

• See page 65 for Printed Wiring Board. (POWER BOARD)



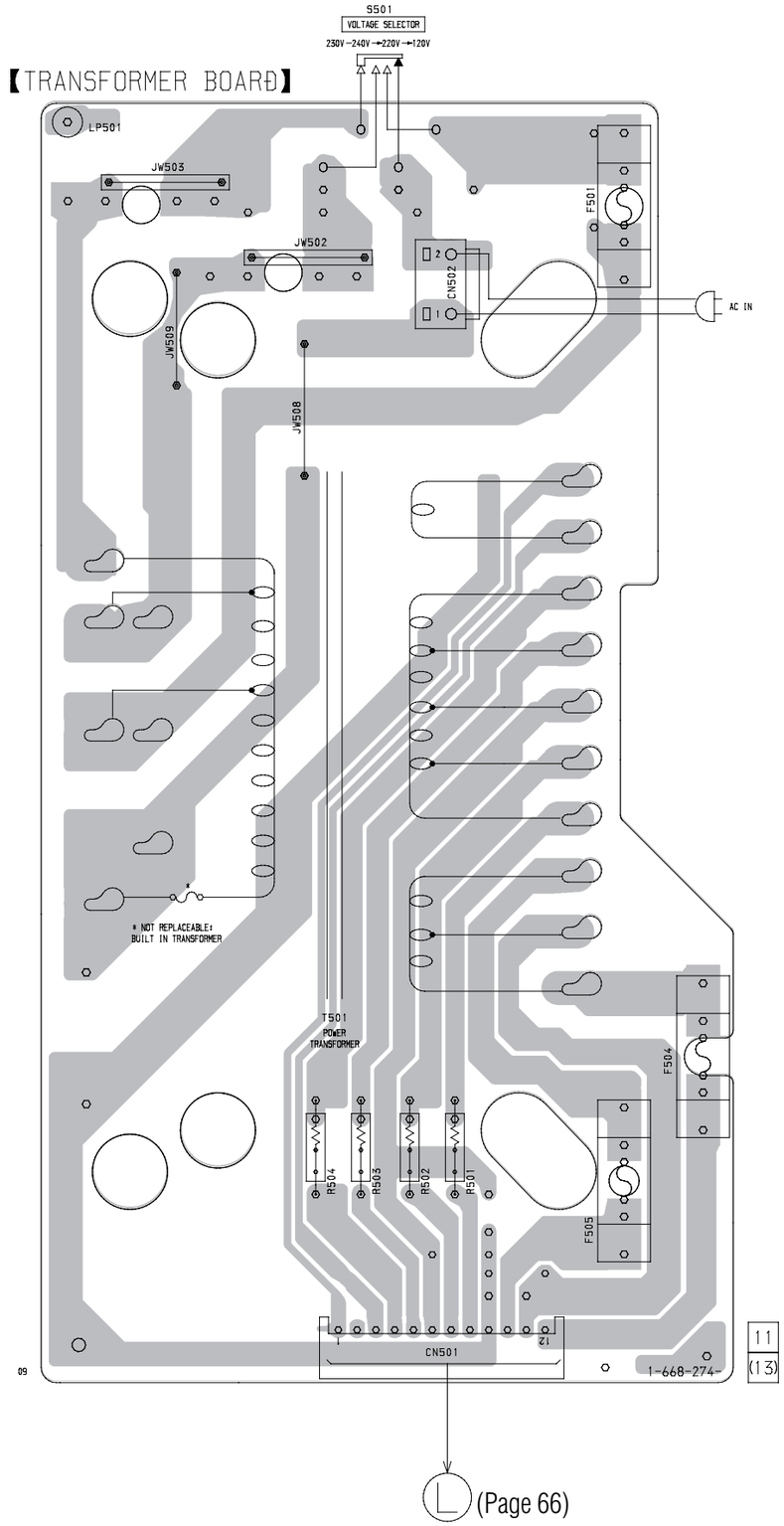
NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:FM

Note:The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

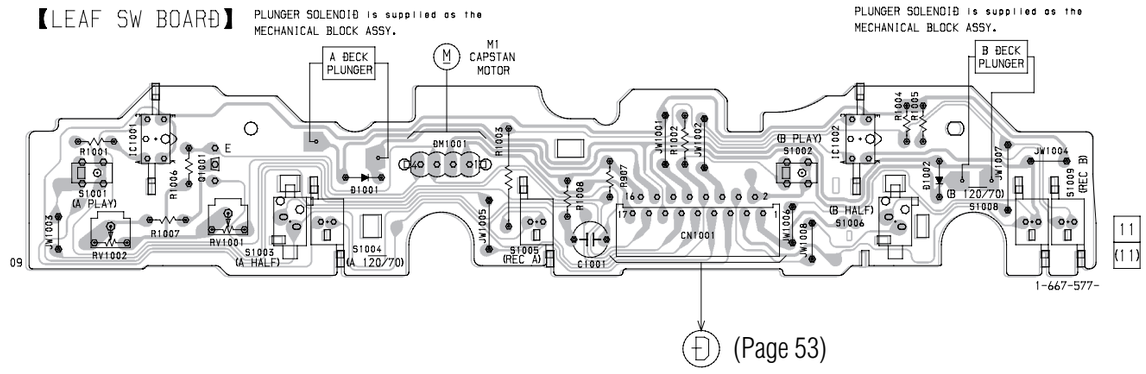
8-21. PRINTED WIRING BOARD – TRANSFORMER SECTION –

• See page 22 for Circuit Boards Location.

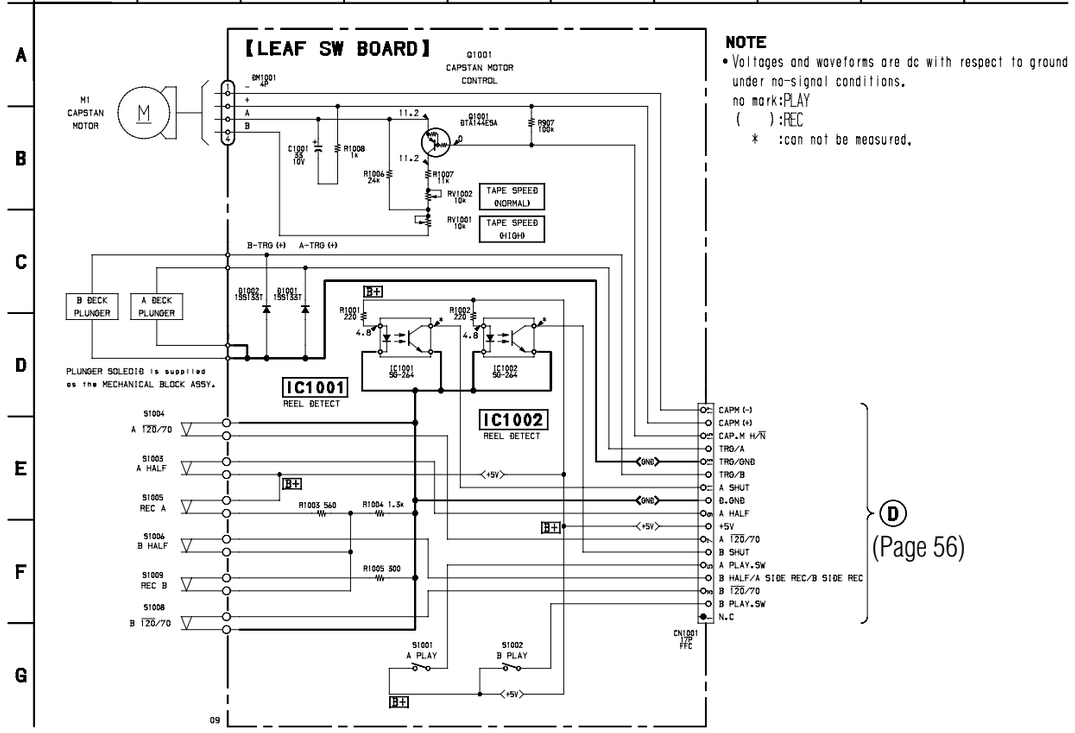


8-22. PRINTED WIRING BOARD – LEAF SW SECTION –

• See page 22 for Circuit Boards Location.



8-23. SCHEMATIC DIAGRAM – LEAF SW SECTION –

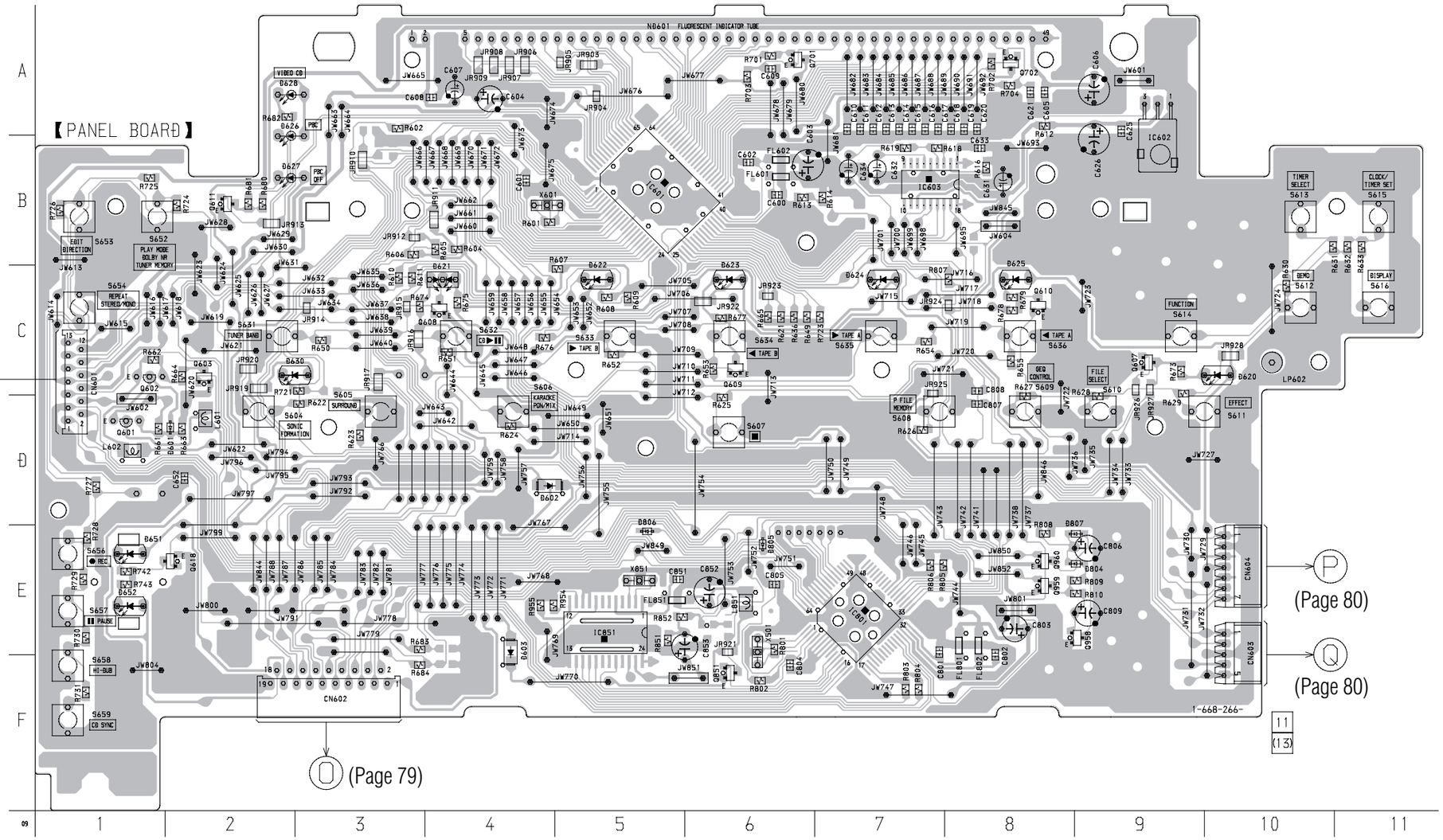


8-24. PRINTED WIRING BOARD – DISPLAY SECTION –

• See page 22 for Circuit Boards Location.

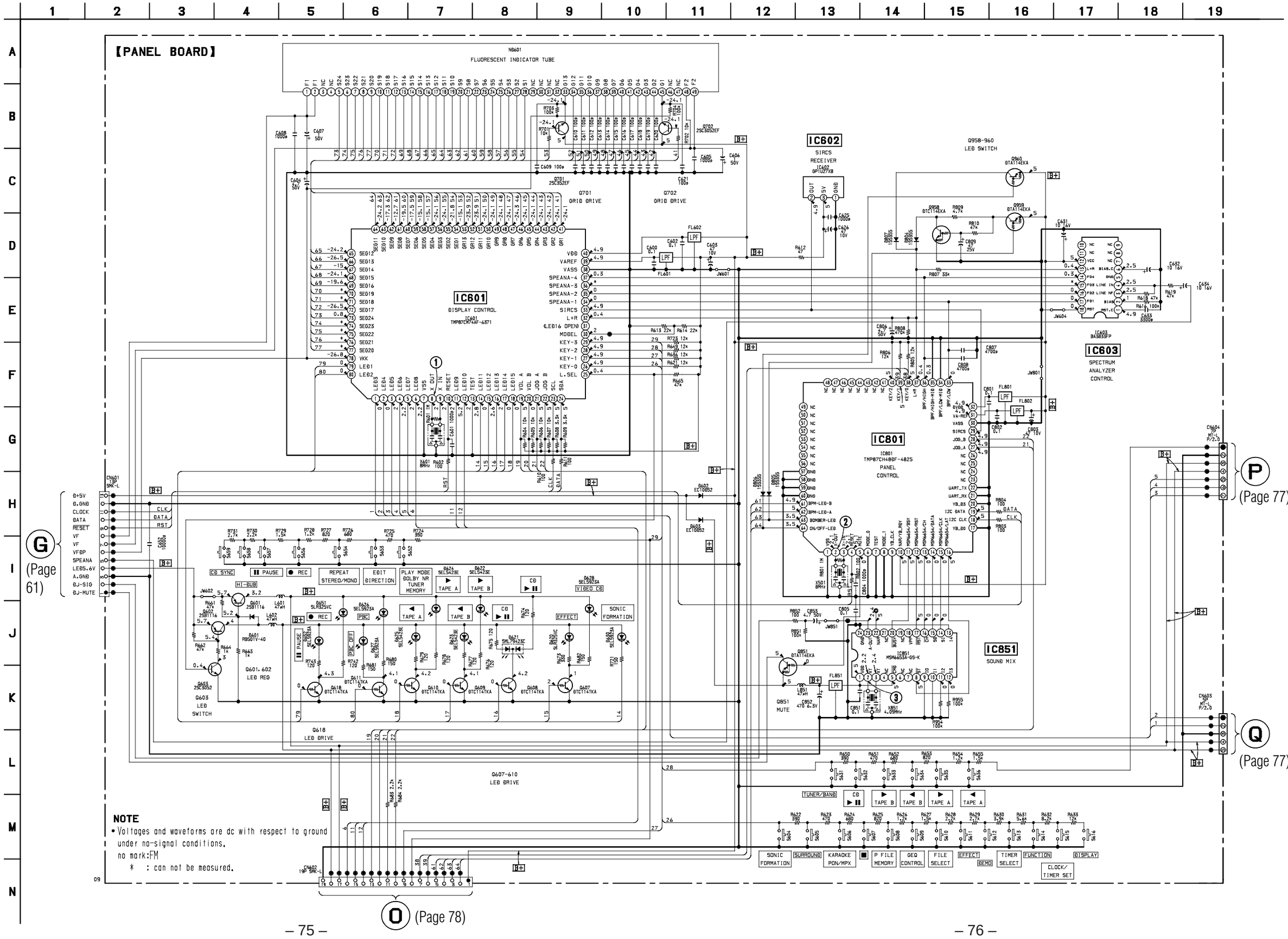
• **Semiconductor Location**

Ref. No.	Location
D601	D-2
D602	D-4
D603	D-4
D620	C-10
D621	C-4
D622	C-5
D623	C-6
D624	C-7
D625	C-8
D626	B-3
D627	B-3
D628	A-3
D630	C-2
D651	E-1
D652	E-1
D804	I-17
D805	E-6
D806	E-5
D807	E-9
IC601	B-5
IC602	A-9
IC603	B-7
IC801	E-7
IC851	E-5
Q601	D-1
Q602	C-1
Q603	C-2
Q607	C-9
Q608	C-4
Q609	C-6
Q610	C-8
Q611	B-2
Q618	E-2
Q701	A-6
Q702	A-8
Q851	F-6
Q958	E-9
Q959	E-8
Q960	E-8



8-25. SCHEMATIC DIAGRAM – DISPLAY SECTION –

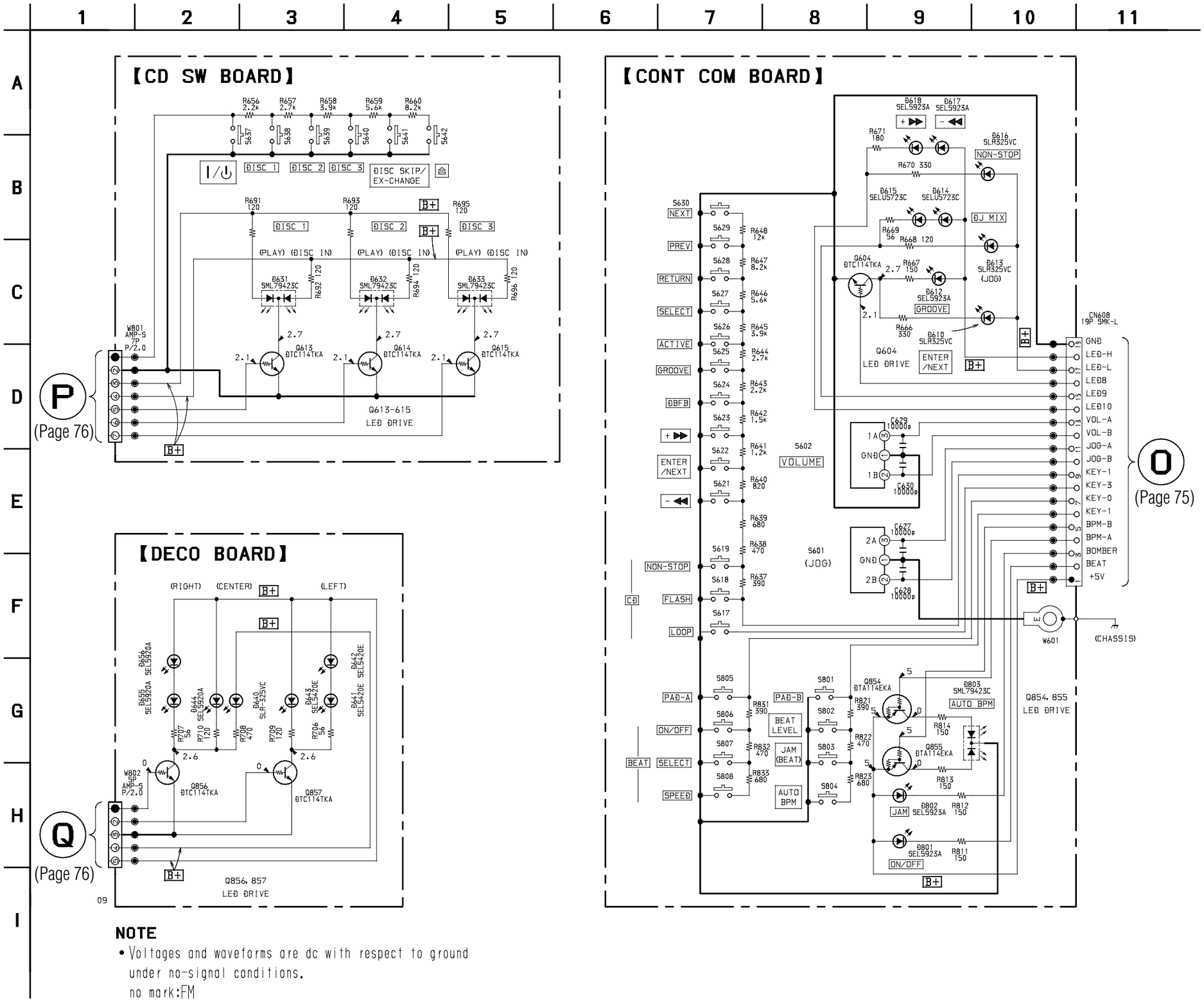
- See page 36 for Waveforms.
- See page 86 for IC Block Diagrams.
- See page 97 for IC Pin Functions.



NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:FM
  * : can not be measured.

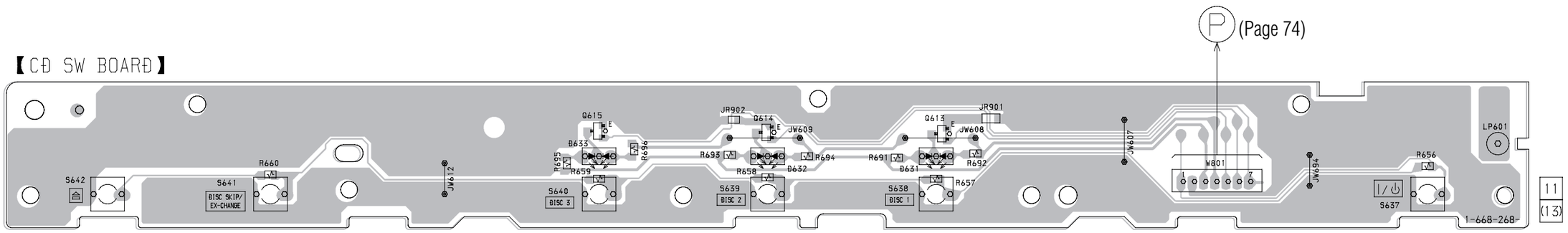
8-26. SCHEMATIC DIAGRAM – PANEL SECTION –



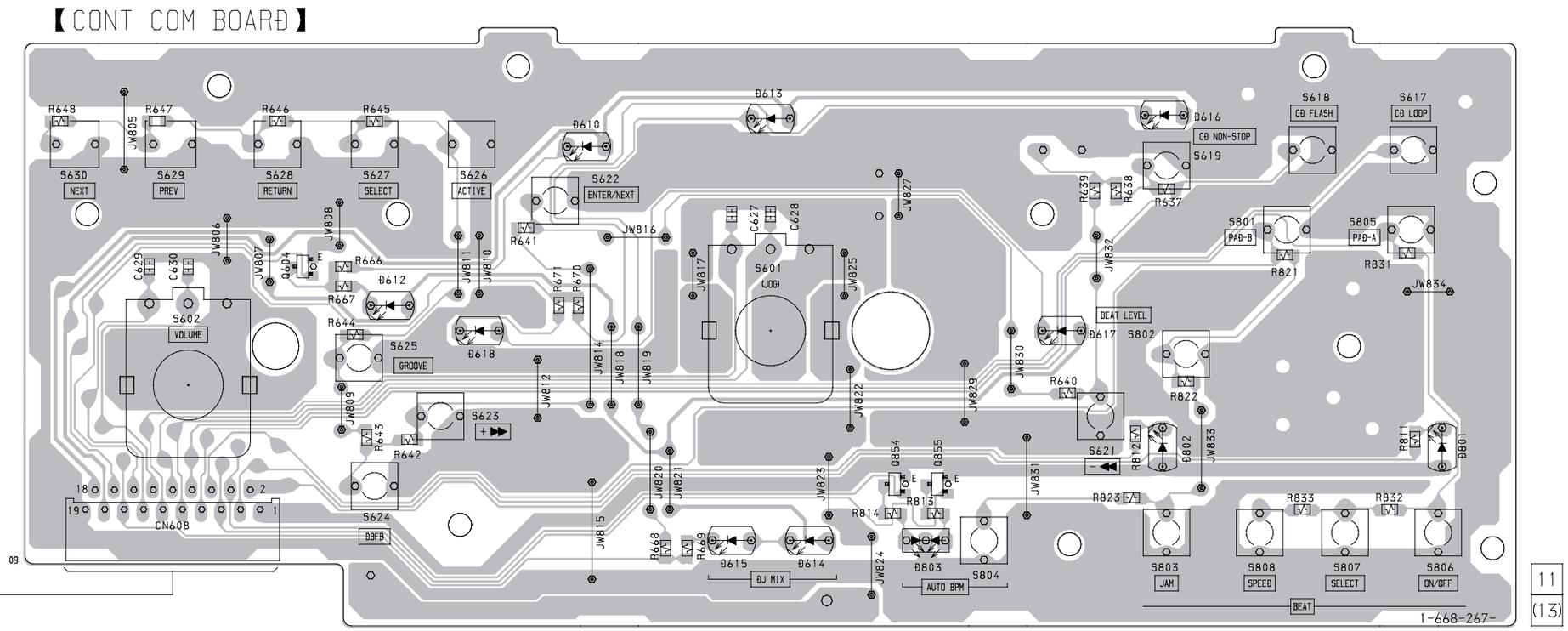
8-27. PRINTED WIRING BOARD – PANEL SECTION –

• See page 22 for Circuit Boards Location.

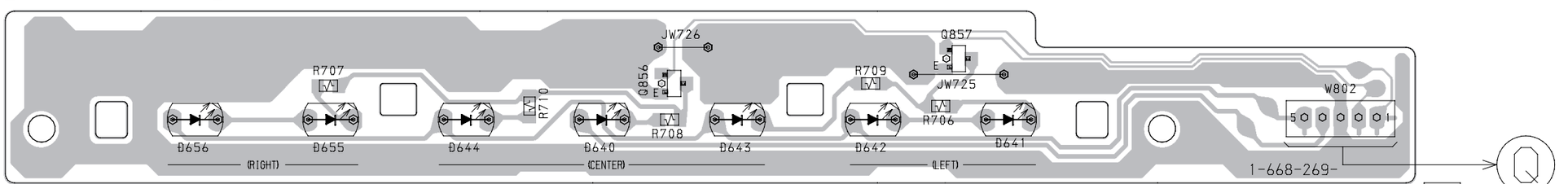
【CÐ SW BOARÐ】



【CONT COM BOARÐ】

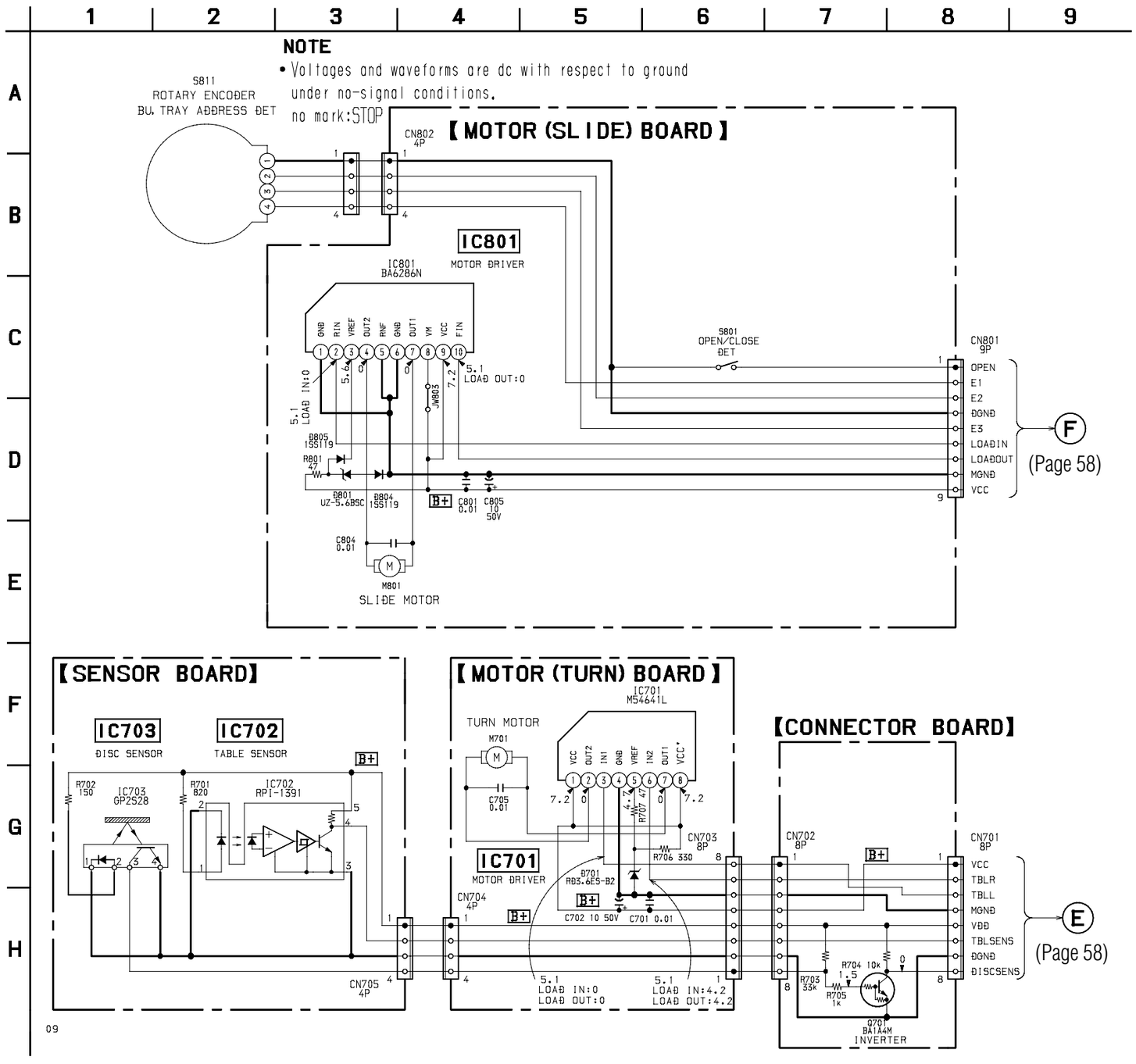


【ÐECO BOARÐ】



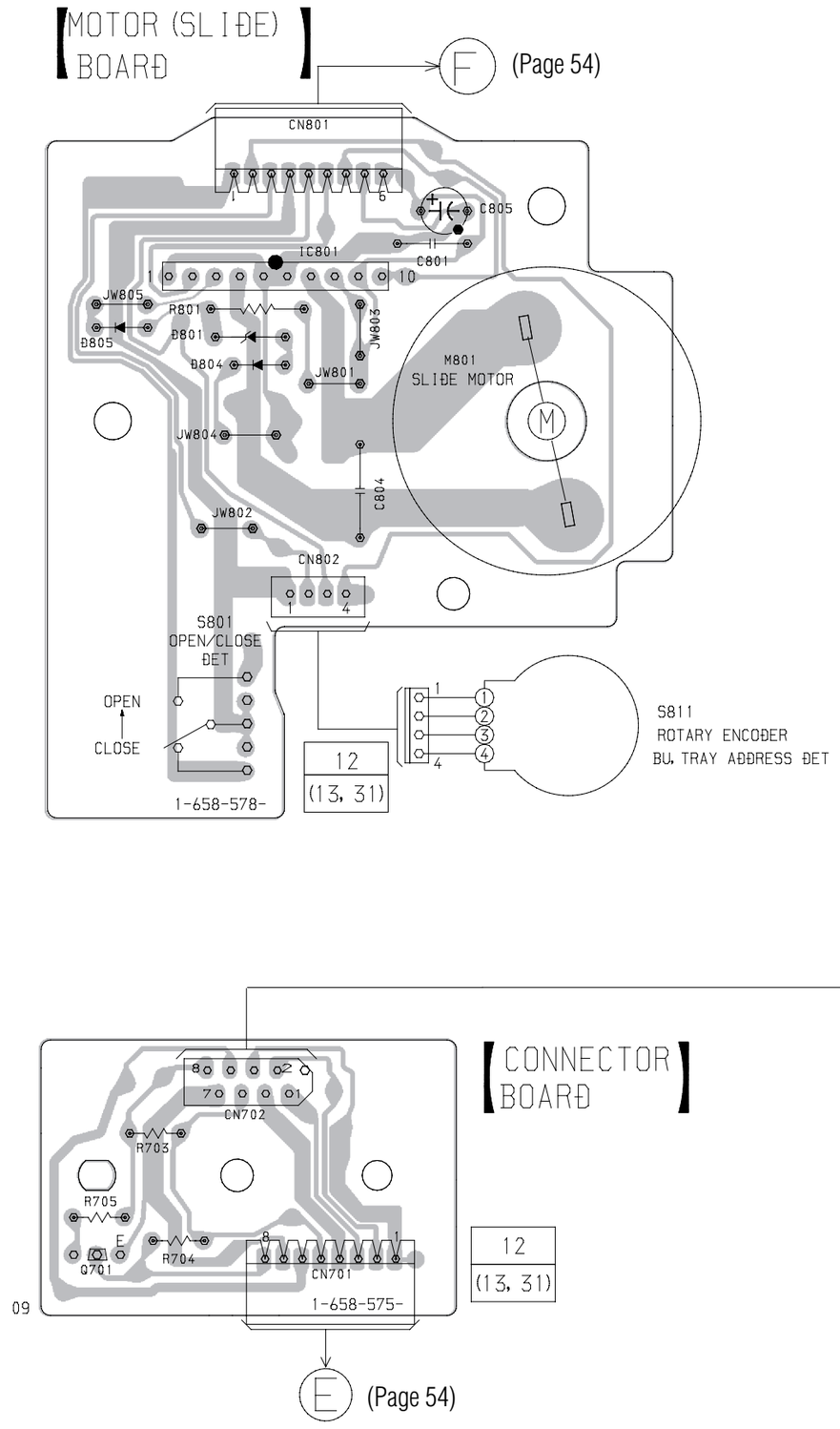
8-28. SCHEMATIC DIAGRAM – CD MOTOR SECTION –

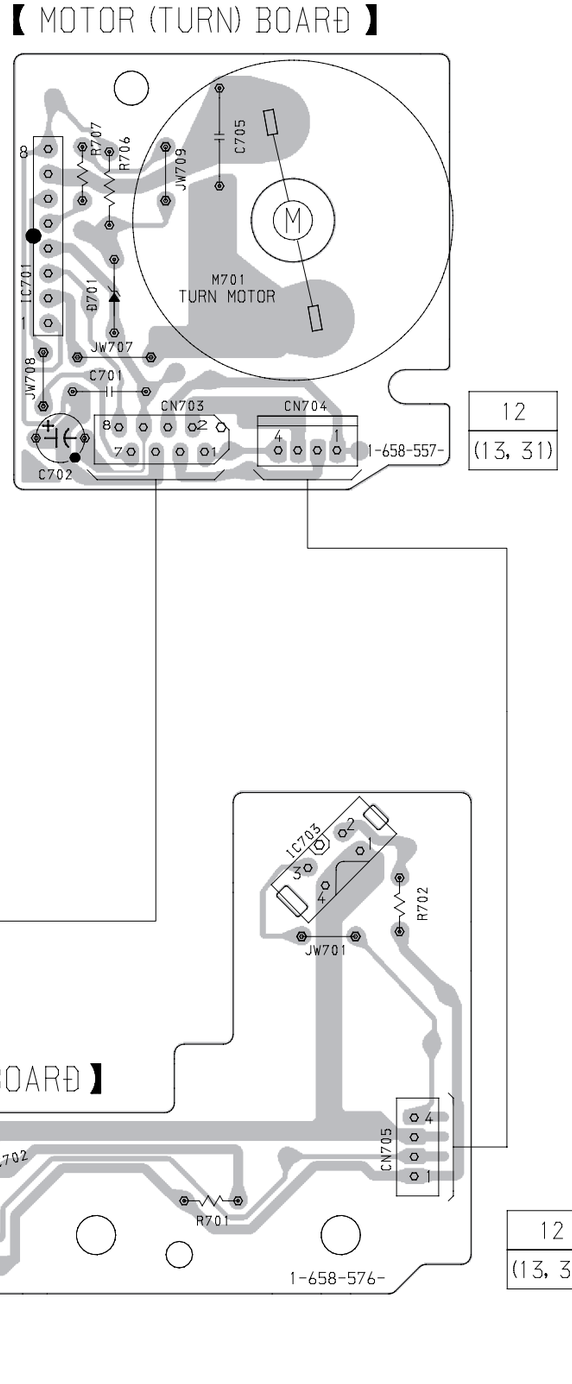
• See page 86 for IC Block Diagrams.



8-29. PRINTED WIRING BOARD – CD MOTOR SECTION –

• See page 22 for Circuit Boards Location.

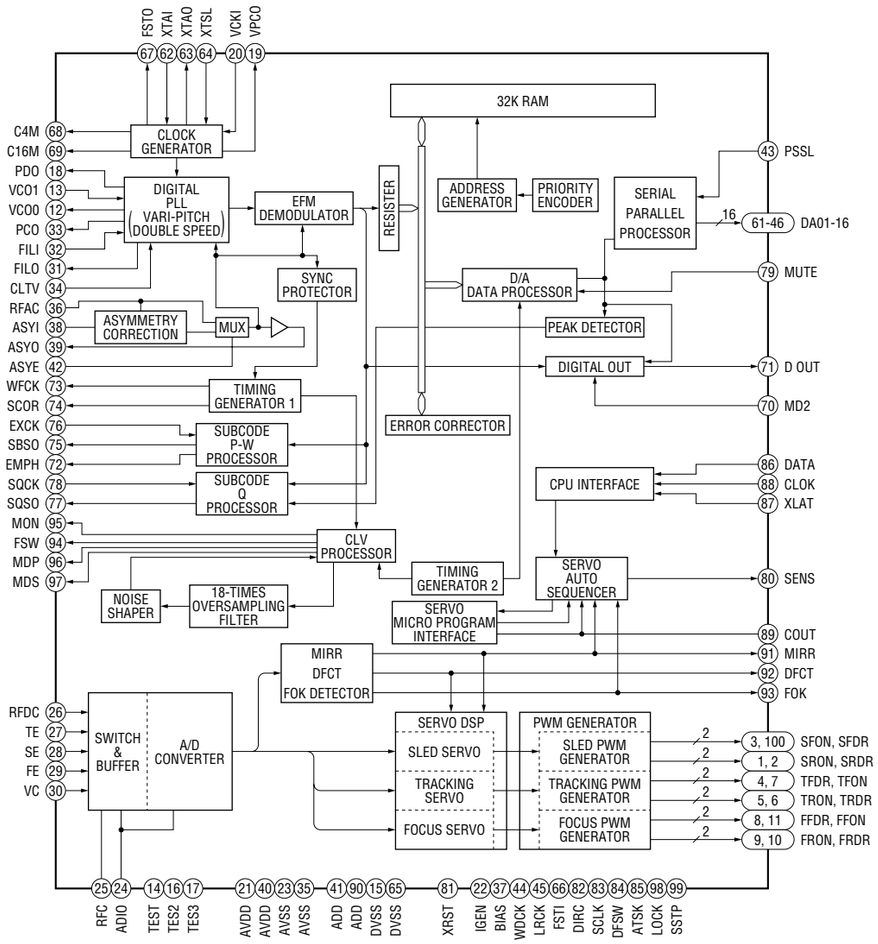




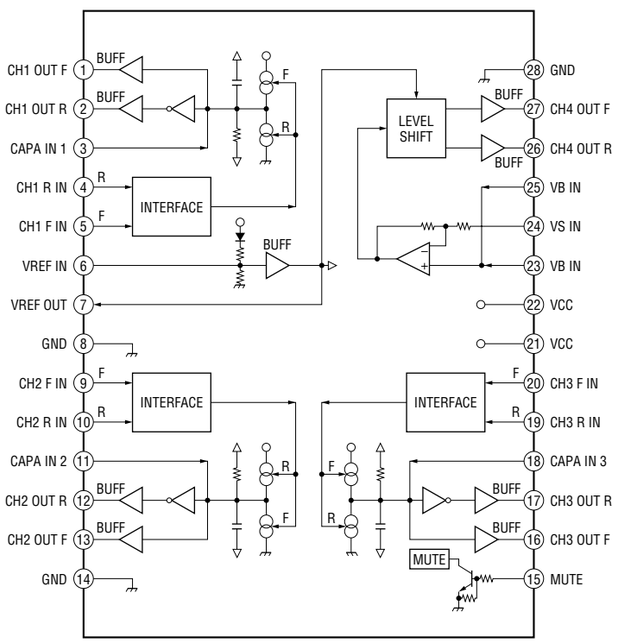
8-30. IC BLOCK DIAGRAMS

• CD section

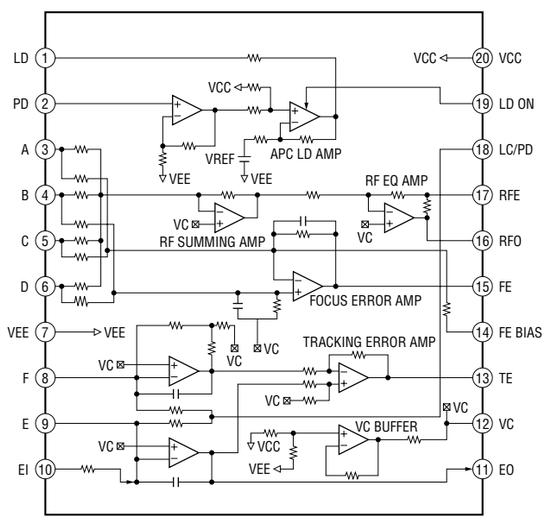
IC101 CXD2545Q



IC102 BA6392FP

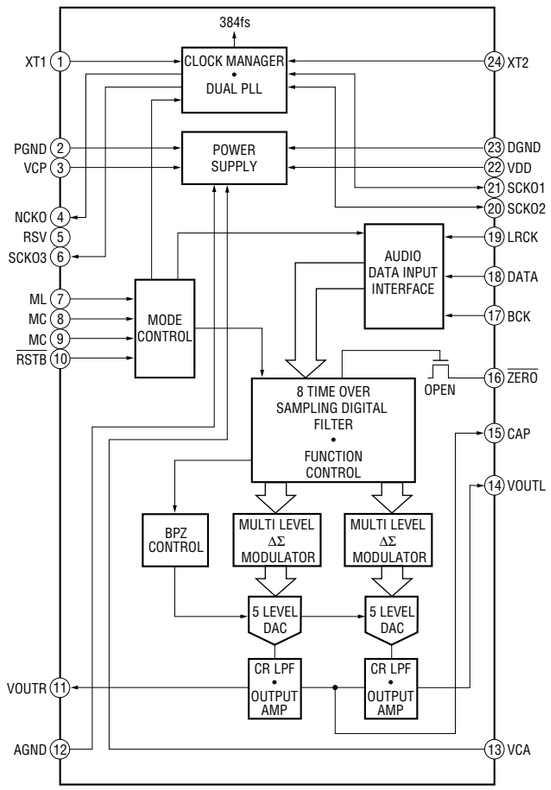


IC103 CXA1821M



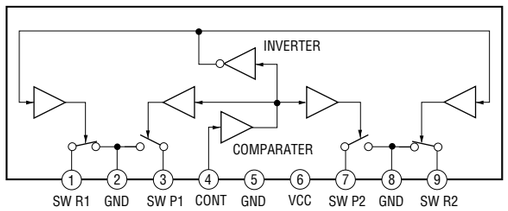
• VIDEO section

IC509 PCM1727E



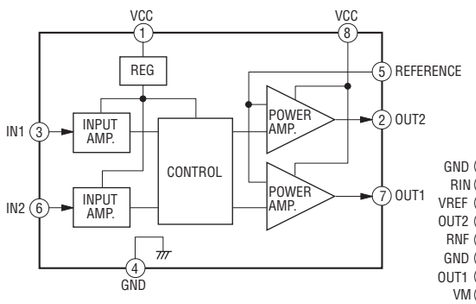
• Deck section

IC602 uPC1330HA

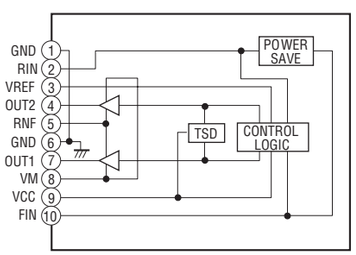


• CD motor section

IC701 M54641L

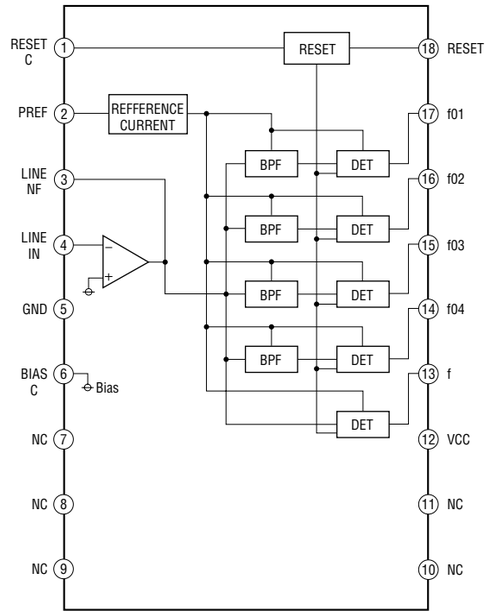


IC801 BA6286N

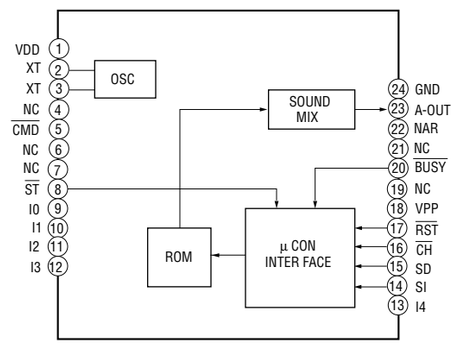


• DISPLAY section

IC603 BA3833F

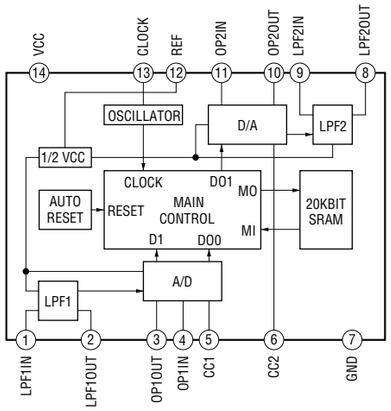


IC851 MSM6653A-517GS-K



• MIC/HP section

IC751 M65850FP



8-31. IC PIN FUNCTIONS

• IC101 DIGITAL SIGNAL PROCESSOR (CXD2545Q)/BD board

Pin No.	Pin Name	I/O	Function
1	SRON	O	Sled drive output (Not used)
2	SRDR	O	Sled drive output
3	SFON	O	Sled drive output (Not used)
4	TFDR	O	Tracking drive output
5	TRON	O	Tracking drive output (Not used)
6	TRDR	O	Tracking drive output
7	TFON	O	Tracking drive output (Not used)
8	FFDR	O	Focus drive output
9	FRON	O	Focus drive output (Not used)
10	FRDR	O	Focus drive output
11	FFON	O	Focus drive output (Not used)
12	VCOO	O	VCO output for analog EFM (Eight to Fourteen Modulation) PLL (Not used)
13	VCOI	I	VCO input from analog EFM PLL (Ground)
14	TEST	I	TEST pin connected normally to ground
15	DVSS	–	Digital ground
16	TES2	I	TEST pin connected normally to ground
17	TES3	I	TEST pin connected normally to ground
18	PDO	O	Charge-pump output for analog EFM PLL (Not used)
19	VPCO	O	Charge-pump output for variable pitch PLL (Not used)
20	VCKI	I	Clock input from variable pitch external VCO
21	AVD2	–	Analog power supply
22	IGEN	I	Power supply pin for operational amplifiers
23	AVS2	–	Analog ground
24	ADIO	I	(Not used)
25	RFC	O	(Not used)
26	RFDC	I	RF signal input
27	TE	I	Tracking error signal input
28	SE	I	Sled error signal input
29	FE	I	Focus error signal input
30	VC	I	Center voltage input pin
31	FILO	O	Filter output for master PLL
32	FILI	I	Filter input for master PLL
33	PCO	O	Charge-pump output for master PLL
34	CLTV	I	Control voltage input for master VCO
35	AVS1	–	Analog ground
36	RFAC	I	EFM signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry comparate voltage input
39	ASYO	O	EFM full swing output
40	AVD1	–	Analog power supply
41	DVDD	–	Digital power supply
42	ASYE	I	Asymmetry circuit ON/OFF
43	PSSL	I	Audio data output mode selection input
44	WDCK	O	48-bit slot D/A interface. word clock. (Not used)
45	LRCK	O	48-bit slot D/A interface. LR clock.
46	DATA	O	DA 16 output when PSSL=1. 48-bit slot serial data when PSSL=0
47	BCLK	O	DA 15 output when PSSL=1. 48-bit slot data when PSSL=0
48	64DATA	O	DA 14 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
49	64BCLK	O	DA 13 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
50	64LRCK	O	DA 12 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)

Pin No.	Pin Name	I/O	Function
51	GTOP	O	DA 11 output when PSSL=1. GTOP output when PSSL=0 (Not used)
52	XUGF	O	DA 10 output when PSSL=1. XUGF output when PSSL=0 (Not used)
53	XPLCK	O	DA 09 output when PSSL=1. XPLCK output when PSSL=0 (Not used)
54	GFS	O	DA 08 output when PSSL=1. GFS output when PSSL=0 (Not used)
55	RFCK	O	DA 07 output when PSSL=1. RFCK output when PSSL=0
56	C2PO	O	DA 06 output when PSSL=1. C2PO output when PSSL=0
57	XRAOF	O	DA 05 output when PSSL=1. XRA0F output when PSSL=0 (Not used)
58	MNT3	O	DA 04 output when PSSL=1. MNT3 output when PSSL=0
59	MNT2	O	DA 03 output when PSSL=1. MNT2 output when PSSL=0
60	MNT1	O	DA 02 output when PSSL=1. MNT1 output when PSSL=0
61	MNT0	O	DA 01 output when PSSL=1. MNT0 output when PSSL=0
62	XTAI	I	X'tal oscillator circuit input
63	XTAO	O	X'tal oscillator circuit output
64	XTSL	I	X'tal selection input pin
65	DV_{SS}	–	Digital ground
66	FSTI	I	2/3 divider input of pins 62, 63
67	FSTO	O	2/3 divider output of pins 62, 63
68	FSOF	O	(Not used)
69	C16M	O	16.9344 MHz output (Not used)
70	MD2	I	Digital-out ON/OFF control pin (+5V)
71	DOUT	O	Digital-out output pin
72	EMPH	O	Playback disc output in emphasis mode (Not used)
73	WFCK	O	WFCK (Write Frame Clock) output
74	SCOR	O	Sub-code sync output
75	SBSO	O	Sub-P through Sub-W serial output (Not used)
76	EXCK	I	Clock input for SBSO read-out
77	SUBQ	O	Sub-Q 80-bit output
78	SQCK	I	Clock input for SQSO read-out
79	MUTE	I	Muting selection pin
80	SENS	O	SENS output
81	XRST	I	System reset
82	DIRC	I	Used in 1-track jump mode (+5V)
83	SCLK	I	SENS serial data read-out clock
84	DFSW	I	Defect selection pin (Ground)
85	ATSK	I	Input pin for anti-shock (Ground)
86	DATA	I	Serial data input, supplied from CPU
87	XLAT	I	Latch input, supplied from CPU
88	CLOK	I	Serial data transfer clock input, supplied from CPU
89	COUT	O	Numbers of track counted signal output (Not used)
90	DV_{DD}	–	Digital power supply
91	MIRR	O	Mirror signal output
92	DFCT	O	Defect signal output (DFCT: Defect)
93	FOK	O	Focus OK output
94	FSW	O	Output to select spindle motor output filter (Not used)
95	MON	O	Output to control ON/OFF of spindle motor (Not used)
96	NDP	O	Output to control spindle motor servo
97	MDS	O	Output to control spindle motor servo (Not used)
98	LOCK	O	GFS (Guarded Frame Sync) is sampled by 460 Hz. H when GFS is H (Not used)
99	SSTP	I	Input signal to detect disc inner most track
100	SFDR	O	Sled drive output

• **IC501 MASTER CONTROL (uPD780016AYGF-014-3BA)**

Pin No.	Pin Name	I/O	Function
1	LINE-MUTE	O	Line mute signal output
2	DBFB-H/L	O	DBFB H/L select signal output
3	M62442-LAT	O	Latch signal output for IC111 (M62442FP)
4	KCON-LAT	O	Not used
5	POWER	O	Power ON/OFF signal output
6	F-RELAY	O	Front speaker relay control output
7	R-RELAY	O	Rear speaker relay control output (Not used)
8	PL-RELAY	O	Surround speaker relay control output
9	VSS	–	Ground
10	X2	O	X'tal (5MHz)
11	X1	I	
12	VDD	–	Power supply (+5V)
13	XT2	O	X'tal (32.768 KHz)
14	XT1	I	
15	RESET	I	Reset signal input
16	(AC-CUT)	I	Back up signal input
17	CAPM-CNT1P	I	Capstan motor control 1 (+) signal output
18	SCOR	O	Subcode data request signal output
19	SOFT-TEST	O	Software test port
20	—	–	Not used
21	RDS-INT	I	RDS data interrupt input (Connected to ground)
22	RDS-DATA	I	RDS data interrupt input (Connected to ground)
23	AVDD	–	Power supply (+5V)
24	AVREF	I	Analog reference voltage input.
25	ADJ	I	CD adjust point port Normal "H"
26	A-SHUT	I	A Deck reel pulse detector
27	B-SHUT	I	B Deck reel pulse detector
28	B-HALF	I	Half detector signal input
29	CLK-CHECK	I	Connected to ground
30	SPEC-IN	I	Version select signal input
31	AMS-IN	I	Connected to ground
32	DEMO-CHANGE	I	DEMO H/L select signal input (Connected to ground)
33	AVSS	–	Ground
34	SQ-DATA-IN	I	Subcode Q data clock input (Connected to ground)
35	—	–	Not used
36	SQ-CLK	I	Not used
37	SUR-ON/OFF	O	Not used
38	FB CONT-A	I	Not used
39	FB CONT-B	I	Connected to ground
40	VSS	–	Ground
41	PL-VOL	O	Not used
42	PL-LAT	O	Not used
43	COM-DIN	I	Connected to ground
44	COM-DOUT	O	Common serial data output (Not used)

• Abbreviation
APC : Auto Power Control

Pin No.	Pin Name	I/O	Function
45	COM-CLK	O	Common serial clock output
46	CD-POWER	O	CD power on signal output
47	CD-DATA	O	Not used
48	CD-CLK	O	Not used
49	PL-CLK	O	Not used
50	PL-DATA	I	Not used
51	M62442-CLK	O	Clock signal output for IC111 (M62442FP)
52	M62442-DATA	O	Data signal output for IC111 (M62442FP)
53	LEVEL-CONT-A	O	Not used
54	LEVEL-CONT-B	O	Not used
55	IIC-DATA	O	Data output for IC502
56	IIC-CLK	O	Clock output for IC502
57	XRST	O	CD reset signal output
58	XLT	O	Not used
59	FCS-SW	O	Not used
60	TBL-L	O	Table motor control output
61	TBL-R	O	
62	—	O	Not used
63	LOAD-OUT	O	Loading motor control signal output
64	LOAD-IN	O	
65	ST-CLK	O	Tuner clock output
66	ST-DIN	I	Tuner data input
67	ST-DOUT	O	Tuner data output
68	ST-CE	O	Tuner chip enable output
69	TUNED	I	Tuned detection for tuner
70	STEREO	I	Stereo detection for tuner
71	VSS	–	Ground
72	ST-MUTE	O	Tuner mute signal output
73	SENS2	I	BD Condition signal input
74	SENS	I	Not used
75	DISC-SENS	I	Slit sensor of disc table input
76	T-SENS	I	CD table detection signal input
77	CAPM-CNT2P	O	Capstan motor control 2 (+) signal output
78	ENC 3	I	Disc tray adrress detect encoder input
79	ENC 2	I	
80	ENC 1	I	
81	OUT-OPEN	O	Loading out detection signal output
82	CAP-M-H/L	O	Capstan motor H/N speed select signal output
83	B-TRG	O	Trigger motor control output
84	A-TRG	O	Trigger motor control output
85	CAPM-CONT1M	O	Capstan motor control 1 (–) signal output
86	CAPM-CONT2M	O	Capstan motor control 2 (–) signal output
87	TC-MUTE	O	TC mute ON/OFF selection output

Pin No.	Pin Name	I/O	Function
88	R/P-PASS	O	REC/PB/PASS selection output
89	NR-ON/OFF	O	NR ON/OFF signal output
90	REC-MUTE	O	REC mute ON/OFF selection output
91	CLK-OUT	O	Clock out signal check
92	BIAS	O	Bias ON/OFF signal output
93	EQ-H/N	O	Equalizer H/N select output
94	PB-A/B	O	PB Deck A/Deck B select output
95	A-PLAY-SW	I	Deck A play detect
96	B-PLAY-SW	I	Deck B play detect
97	TC-RELAY	O	REC/PB head selection output for IC602
98	A-HALF	I	Deck A cassette detect
99	ALC-ON/OFF	O	ALC ON/OFF output signal
100	STK-MUTE	O	Power amp ON/OFF signal output

• **IC502 MPEG DECODER, MECHANISM CONTROL (M30620MC-302FP or M30620MC-305FP)**

Pin No.	Pin Name	I/O	Function
1	SENSE	I	Internal state (SENSE) monitor input (IC101)
2	SENSE CLK	O	Serial data reading clock output (IC101)
3	DSP DATA	O	Serial data output (IC101)
4	DSP LATCH	O	Lach output (IC101)
5	DSP CLK	O	Serial data clock output (IC101)
6	TSENS	I	Not used
7	REMOTE IN	I	Not used
8	BYTE	I	External bus width change input (Connected to ground)
9	VSS	–	Ground
10	DSP MUTE	O	Mute output (IC101) “H” : mute
11	CTRL1 (L : DOUBLE)	O	Double change output (IC101) “L” : double
12	XRESET	I	System reset input “L” : reset
13	XOUT	O	Main clock output (10MHz)
14	VSS	–	Ground
15	XIN	I	Main clock input (10MHz)
16	VCC	–	+5V power supply
17	NMI	I	Requests mask disable interruption input (Connected to +5V)
18	SCOR	I	Subcode sync input (IC101)
19	D SENS	I	Not used
20	CL680 INT	I	Video CD interruption input (IC505)
21	CL680 HSEL	O	Video CD select data of the host MPU (IC505)
22	DF LATCH	O	Digital filter latch output (IC509)
23	CL680 HRDY	I	Ready signal input for communication to the host MPU (IC505)
24	680 RESET	O	Video CD reset output (IC505) “L” : reset
25	JOG1	I	Not used
26	JOG2	I	Not used
27	CTRL2	O	Double control output (IC101) “H” : double
28	LD ON	O	Laser diode ON/OFF output
29	IIC1	I/O	IIC convertion microcomputer receive data (Former type), IIC clock input from master control (New type)
30	IIC0	I/O	IIC convertion microcomputer transmittion data (Former type), IIC data input from master control (New type)
31	DATA1O	O	Serial 1 data output (IC505, 509)
32	DATA1I	I	Serial 1 data input (IC505, 509)
33	CLK1	O	Serial 1 clock output
34	SHARPNESS	O	Sharpness output L : normal, H : sharpness
35	XVLEVEL. DOWN	O	Fix the video signal output level output
36	SUBQ DATA	I	Serial 2 data input for subcode sync reading
37	SUBQ CLK	I	Serial 2 clock input for subcode sync reading
38	P. ON	I	Not used
39	BUS XRDY	I	Not used
40	BUS	I	Not used
41	BUS XHOLD	I	Not used
42, 43	BUS	I	Not used
44	BUS XRD	I	Model selection input “L” : chinese model, “H” : except chinese model
45	BUS	I	V sync signal input

NOTE:
When use the IC402 : Former type
When not use the IC402 : New type

Pin No.	Pin Name	I/O	Function
46	BUS XWRL	I	Not used
47	LO. BOOST	I	Not used
48	AUDIO MUTE	O	Audio mute output “L” : mute
49	LOAD OUT	I	Not used
50	LOAD IN	I	Not used
51	INSW	I	Not used
52	OUTSW	I	Not used
53	MODEL 1	I	L : System input (Fixed at “L”)
54	MODEL 2	I	L : System input (Fixed at “L”)
55	TBLL	I	Not used
56	TBLR	I	Not used
57	ENC 1	I	Not used
58	ENC 2	I	Not used
59	ENC 3	I	Not used
60	—	I	Not used
61	—	I	Not used
62	VCC	–	+5V power supply
63	—	I	Not used
64	VSS	–	Ground
65	A7	O	Video mute output “L”
66 to 71	A6 to A1	I	Not used
72	U to I	I	IIC convertion microcomputor transmittion input
73	TEST LED	O	TEST LED for MPEG decoder
74	TEST 1	I	Test mode for Video CD check
75	TEST 2	I	Test mode for servo check
76	TEST 3	I	Not used
77	DEVICE RESET	O	Device system rest output “L” : reset
78	STANDBY	I	Not used
79	FL CS	I	Not used
80	FL	I	Not used
81 to 88	D7 to D0	I	Not used
89	MIC CTRL	I	Not used
90	KEY 1	I	Not used
91	KEY 2	I	Not used
92	KEY 3	I	Not used
93	NY/PAL	I	NTSC/PAL select switch input
94	MUSIC VOL	I	Not used
95	KEY 4	I	Not used
96	AVSS	–	A/D converter ground
97	MODE. SW	I	Not used
98	VREF	I	A/D converter reference voltage input (Connected to +5V)
99	AVCC	–	A/D converter +5V power supply
100	AMP. ON	I	Not used

• **IC505 CD DECODER, SYSTEM CONTROL (CL680T-D1)**

Pin No.	Pin Name	I/O	Function
1	NC	–	Not used
2	VSS	–	Ground
3	CD-BCK	I	CD Decode bit clock
4	CD-DATA	I	CD Decode data
5	CD-LRCK	I	CD Decode Left or Right channel selection clock
6	CD-C2PO	I	CD Decode C2 error data
7	NC	–	Not used
8	NC	–	Not used
9	NC	–	Not used
10	MD0	I/O	Data bus between Microcode ROM/DRAM and CL680
11	MD1	I/O	Data bus between Microcode ROM/DRAM and CL680
12	MD2	I/O	Data bus between Microcode ROM/DRAM and CL680
13	MD3	I/O	Data bus between Microcode ROM/DRAM and CL680
14	MD4	I/O	Data bus between Microcode ROM/DRAM and CL680
15	MD5	I/O	Data bus between Microcode ROM/DRAM and CL680
16	VSS	–	Ground
17	MD6	I/O	Data bus between Microcode ROM/DRAM and CL680
18	VDD3	–	+3.3V Power supply
19	MD7	I/O	Data bus between Microcode ROM/DRAM and CL680
20	VSS	–	Ground
21	MD8	I/O	Data bus between Microcode ROM/DRAM and CL680
22	VDD3	–	+3.3V Power supply
23	MD9	I/O	Data bus between Microcode ROM/DRAM and CL680
24	MD10	I/O	Data bus between Microcode ROM/DRAM and CL680
25	MD11	I/O	Data bus between Microcode ROM/DRAM and CL680
26	MD12	I/O	Data bus between Microcode ROM/DRAM and CL680
27	MD13	I/O	Data bus between Microcode ROM/DRAM and CL680
28	MD14	I/O	Data bus between Microcode ROM/DRAM and CL680
29	MD15	I/O	Data bus between Microcode ROM/DRAM and CL680
30	NC	–	Not used
31	NC	–	Not used
32	NC	–	Not used
33	NC	–	Not used
34	NC	–	Not used
35	NC	–	Not used
36	NC	–	Not used
37	$\overline{\text{MCE}}$	O	Chip enable signal to Microcode ROM
38	$\overline{\text{MWE}}$	O	Write enable signal to DRAM
39	VSS	–	Ground
40	CAS	O	Column address strove : Latch the column address to DRAM
41	VDD3	–	+3.3V power supply
42	$\overline{\text{RAS0}}$	O	Row address strove : Latch row address to DRAM
43	$\overline{\text{RAS1}}$	–	Not used
44	MA10	O	Address data from CL680 to Microcode ROM
45	MA9	O	Address data from CL680 to Microcode ROM

Pin No.	Pin Name	I/O	Function
46	MA8	O	Address data from CL680 to Microcode ROM/DRAM
47	VSS	–	Ground
48	MA7	O	Address data from CL680 to Microcode ROM/DRAM
49	VDD3	–	+3.3V Power supply
50	MA6	O	Address data from CL680 to Microcode ROM/DRAM
51	MA5	O	Address data from CL680 to Microcode ROM/DRAM
52	MA4	O	Address data from CL680 to Microcode ROM/DRAM
53	VSS	–	Ground
54	MA3	O	Address data from CL680 to Microcode ROM/DRAM
55	VDD3	–	+3.3V Power supply
56	MA2	O	Address data from CL680 to Microcode ROM/DRAM
57	MA1	O	Address data from CL680 to Microcode ROM/DRAM
58	MA0	O	Address data from CL680 to Microcode ROM/DRAM
59	PGIO7	I/O	Not used
60	$\overline{\text{RESET}}$	I	Reset signal input from the host MPU
61	VDDMAX-IN	I	Fix the maxium input voltage each input pin and I/O pin
62	NC	–	Not used
63	NC	–	Not used
64	NC	–	Not used
65	AGND DAC	–	Ground
66	AVDD DAC	–	+3.3V Power supply
67	COMPOS OUT	O	Not used
68	AGND DAC	–	Ground
69	Y-OUT	O	Luminance signal out
70	AVDD DAC	–	+3.3V Power supply
71	AGND DAC	–	Ground
72	RREF	I	Fix the video signal output level
73	(1.235V) VREF	O	Reference voltage (+1.235V)
74	AVDD DAC	–	+3.3V Power supply
75	C-OUT	O	Chrominance signal out
76	AGND DAC	–	Ground
77	(GCK INT) CLK SEL	I	GCK selection “H”; Internal, “L”; External
78	CLK SEL	I	DA-XCK selection (1)
79	CLK SEL	I	DA-XCK selection (2)
80	VSS	–	Ground
81	RESERVED	I	Selection the operation clock 42.336MHz
82	VDD3	–	+3.3V Power supply
83	DA-EMP	–	Not used
84	RESERVED	–	Not used
85	AGND PLL	–	Ground
86	DA-XCLK	I	Main reference clock input (16.9344MHz=384fs)
87	AVDD PLL	–	+3.3V
88	PGIO4	I/O	Not used
89	PGIO5	I/O	Not used
90	PGIO6	I/O	Not used

Pin No.	Pin Name	I/O	Function
91	PGIO0	I/O	Not used
92	PGIO8	I/O	Not used
93	PGIO2/$\overline{\text{VSYNC}}$/CSYNC	O	Vertical synchronized signal of video signal
94	AVDD PLL	–	+3.3V Power supply
95	NC	–	Not used
96	NC	–	Not used
97	NC	–	Not used
98	AGND PLL	–	Ground
99	VSS	–	Ground
100	NC	–	Not used
101	PGIO3/$\overline{\text{HSYNC}}$	I/O	Not used
102	VDD3	–	+3.3V Power supply
103	PGIO1/VCK-OUT	I/O	Not used
104	VSS	–	Ground
105	GCK	I	Not used
106	VCK-IN	I	Main clock for video signal processer
107	GCKOUT/DA-EMP	O	Not used
108	DA-LRCK	O	Digital Audio Left or Right channel selection clock
109	VDDMAX-OUT	O	Fix the maxium output voltage certain output pins (Connected to +5V)
110	DA-DATA	O	Digital Audio data
111	DA-BCK	O	Digital Audio bit clock
112	HD-OUT	O	Serial Data output from CL680 to the host MPU
113	HRDY	O	Ready signal CL680 is ready for communication to the host MPU
114	$\overline{\text{HINT}}$	O	Request signal for interrupting the host MPU
115	CDG-SCK	I/O	Not used
116	VSS	–	Ground
117	HCK	I	Host clock : referance signal for the host bus interface
118	VDD3	–	+3.3V Power supply
119	HD-IN	I	Serial Data output ftom the host MPU to CL680
120	VDD3	–	+3.3V Power supply
121	HSEL	I	Select data or address of the host MPU
122	CDG-SDATA	I	Ground (Not used)
123	CDG-VFSY	I	Ground (Not used)
124	CDG-SOS1	I	Ground (Not used)
125	NC	–	Not used
126	NC	–	Not used
127	NC	–	Not used
128	NC	–	Not used

• IC601 DISPLAY CONTROL (TMP87CM74AF)

Pin No.	Pin Name	I/O	Function
1 to 6	LED3 to LED8	O	LED driver output
7	VSS	–	Ground
8	X OUT	O	X'tall (8MHz)
9	X IN	I	
10	RESET	I	Reset signal input from main controller
11	LED9	O	LED driver output
12	LED10	O	
13	TEST	I	Connected ground
14 to 18	LED11 to LED15	O	LED driver output
19	VOL A	I	Rotary encoder (S602) pulse input
20	VOL B	I	
21	JOG A	I	Rotaly encoder (S601) pulse input
22	JOG B	I	
23	SCL	O	Serial clock input from master controller
24	SDA	O	Serial data input from master controller
25	L. SEL	O	LED select signal output
26 to 29	KEY 0 to KEY 3	I	Key input
30	MODEL	I	Version select signal input
31	(LED 16 OPEN)	–	LED driver output (Not used)
32	L + R	I	Spectrum analyzer (high frequency) input
33	SIRCS	I	Remote commander signal input
34 to 37	SPEANA 1 to SPEANA 4	I	Spectrum analyzer input
38	VASS	–	Ground
39	VAREF	I	Analog reference voltage input
40	VDD	–	Power supply (+5V)
41 to 53	GR 1 to GR13	O	FL gride signal output
54 to 77	SEG 1 to SEG 24	O	FL segment signal output
78	VKK	–	Power supply (–25V) for FL segment signal output
79	LED 1	O	LED driver output
80	LED 2	O	

• Abbreviation
FL : Fluorescent indicator tube

• IC801 PANEL CONTROL (TMP87CH48DF)

Pin No.	Pin Name	I/O	Function
1	VSS	–	Ground
2	X OUT	O	X'tall (8MHz)
3	X IN	I	
4	RESET	I	Reset signal input
5	MUTE	I	Mute ON/OFF selection input
6	MODE_0	I	Connected to ground
7	TEST	–	
8	MODE_1	I	
9	YB_CLK	O	
10	NAR/YB_RDY	I	Connected to VDD
11	MSM6654/BSY	I	Busy signal input for IC851 (MSM6653A)
12	MSM6654/RST	O	Reset signal output for IC851 (MSM6653A)
13	MSM6654/CH	O	Channel signal output for IC851 (MSM6653A)
14	MSM6654/DATA	O	Data signal output for IC851 (MSM6653A)
15	MSM6654/CLK	O	Clock signal output for IC851 (MSM6653A)
16	MSM6654/LAT	O	Latch signal output for IC851 (MSM6653A)
17	YB_D0	I	Connected to ground
18	IC2 CLK	I	Serial clock input from master controller
19	IC2 DATA	I	Serial data input from master controller
20	YB_D3	I	Connected to ground
21	UART RX	I	
22	UART TX	O	
23 to 26	NC	O	Connected to ground
27	JOG_A	I	Rotary encoder (S601) pulse input
28	JOG_B	I	
29	SIRCS	I	Remote commander signal input
30	VASS	–	Ground
31	VAREF	I	Analog reference voltage input
32	DVDD	–	Power supply (+5V)
33	BPF/LOW	I	Spectrum analyzer input
34	BPF/LOW-MID	I	Connected to ground
35	BPF/HIGH-MID	I	Connected to ground
36	BPF/HIGH	I	Spectrum analyzer input
37	L + R	I	Spectrum analyzer (high frequency) input
38	KEY/0	I	Key input
39	KEY/1	I	
40	KEY/2	I	Connected to VDD
41 to 56	NC	O	Not used
57 to 60	GND	–	Ground
61	BPM_LED_B	O	LED Drive output
62	BPM_LED_A	O	
63	BOMBER_LED	O	
64	ON/OFF_LED	O	

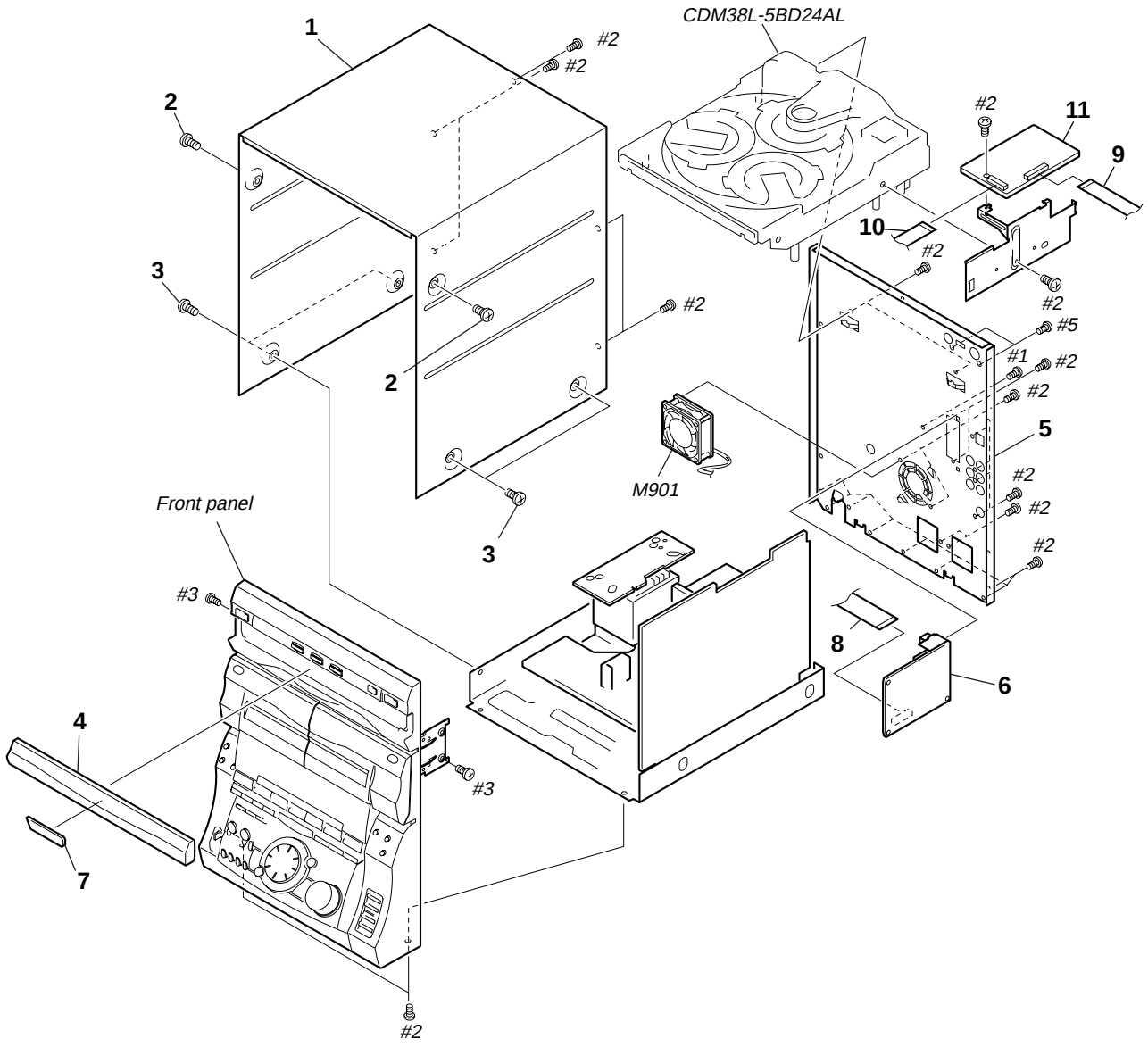
SECTION 9
EXPLODED VIEWS

NOTE:
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- Abbreviation
  EA : Saudi Arabia model
  HK : Hong Kong model
  SP : Singapore model
  MY : Malaysia model
  TW : Taiwan model
  IA : Indonesian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

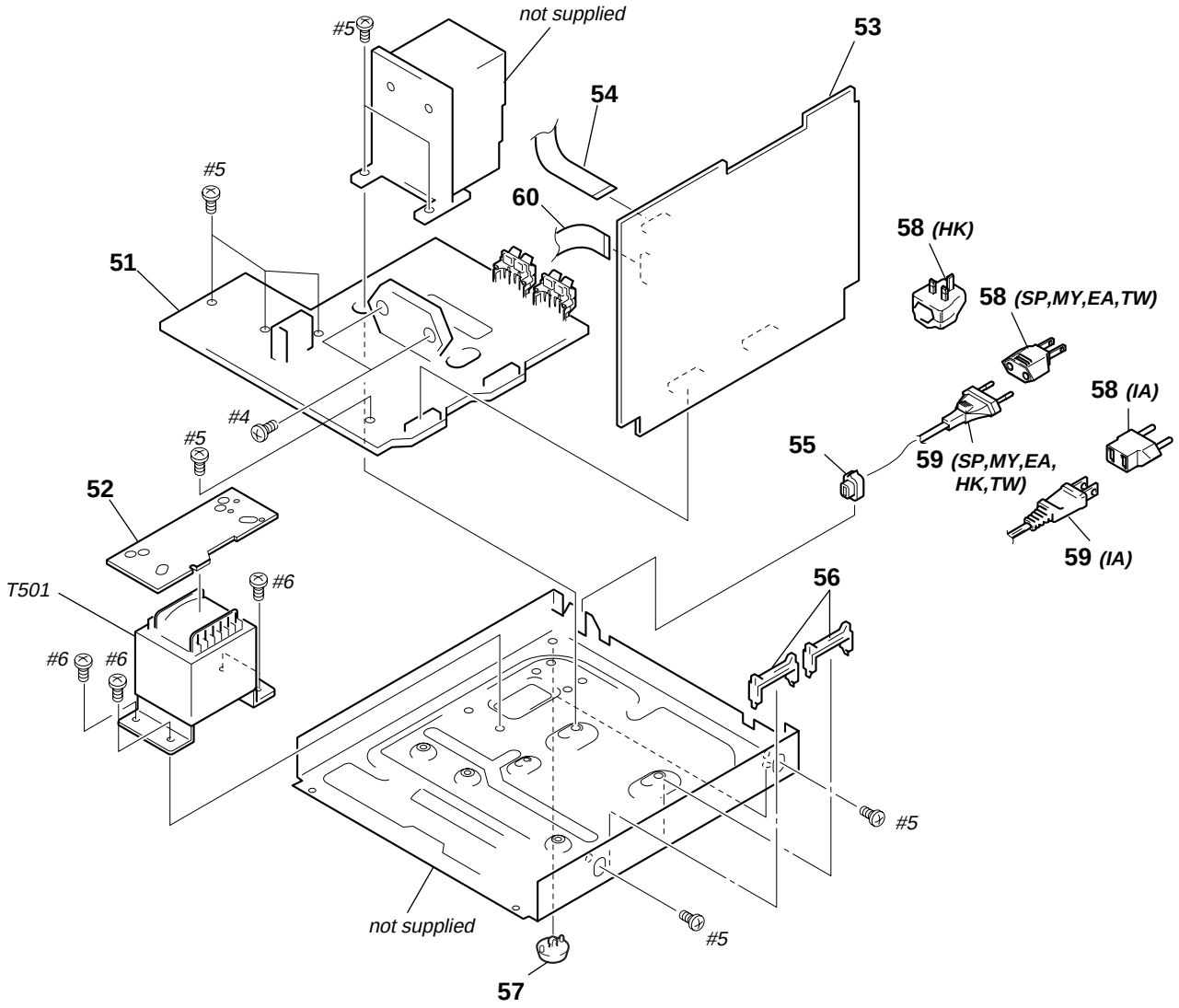
9-1. CASE SECTION



Ref. No.	Part No.	Description	Remark
1	4-996-816-01	CASE	
2	3-363-099-71	SCREW (CASE 3 TP2)	
3	3-363-099-11	SCREW (CASE 3 TP2)	
4	4-900-740-01	PANEL, LOADING	
* 5	4-999-907-01	PANEL, BACK (SP,MY)	
* 5	4-999-907-11	PANEL, BACK (EA)	
* 5	4-999-907-31	PANEL, BACK (HK)	
* 5	4-999-907-41	PANEL, BACK (TW)	
* 5	4-999-907-51	PANEL, BACK (IA)	

Ref. No.	Part No.	Description	Remark
6	1-693-421-11	TUNER (FM/AM)	
7	4-991-781-01	EMBLEM (VCD)	
8	1-773-009-11	WIRE (FLAT TYPE) (15 CORE)(150mm)	
9	1-775-212-11	WIRE (FLAT TYPE) (23 CORE)	
10	1-690-589-31	WIRE (FLAT TYPE) (13 CORE)	
* 11	A-4414-188-A	VIDEO BOARD, COMPLETE	
M901	1-763-048-21	FAN, D.C.	

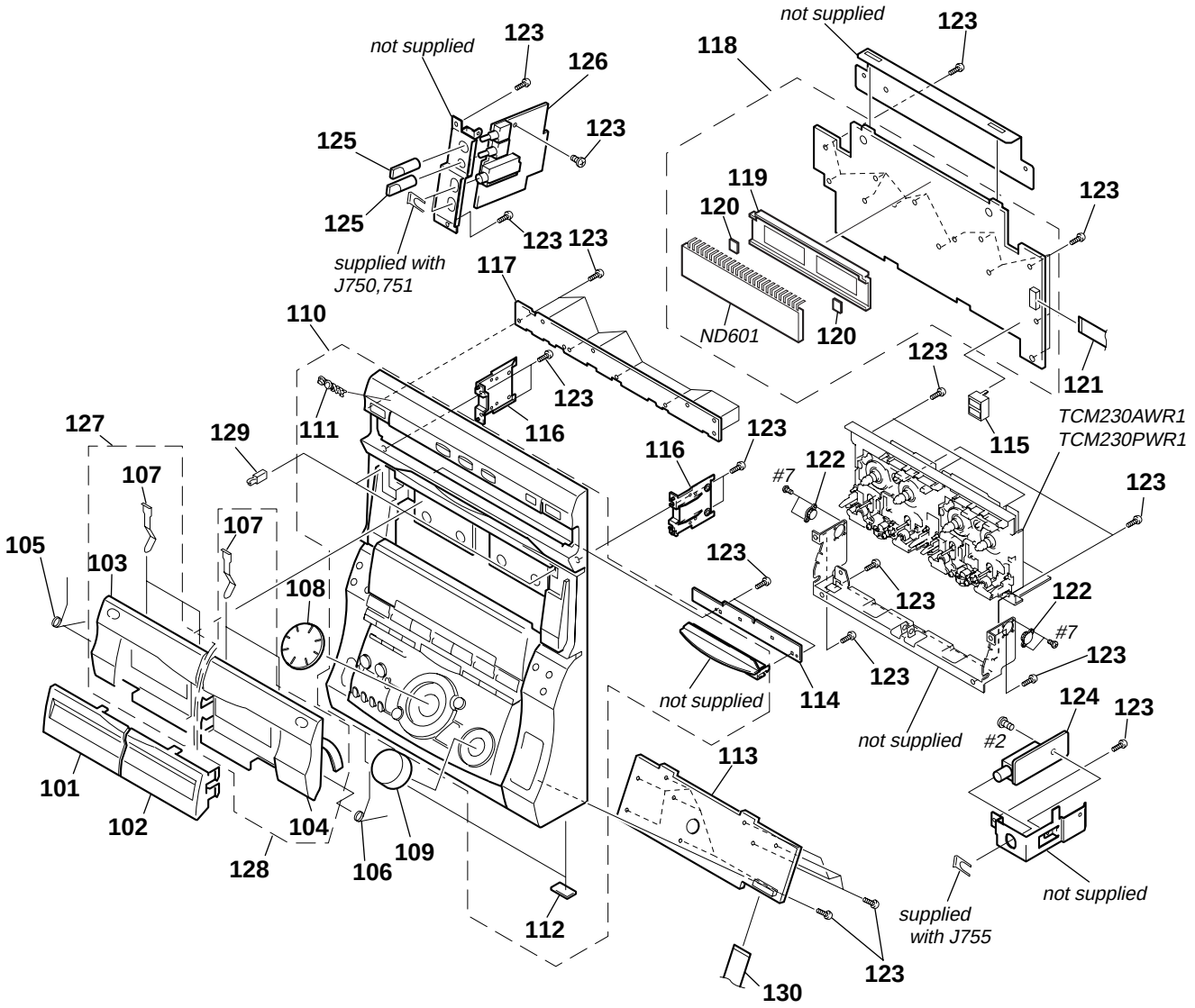
9-2. CHASSIS SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
* 51	A-4407-260-A	POWER BOARD, COMPLETE (Indonesia Product)(SP,MY,EA,HK,IA,TW)	
51	A-4407-498-A	POWER BOARD, COMPLETE (Malaysia Product)(MY)	
* 52	1-668-274-11	TRANSFORMER BOARD	
* 53	A-4414-035-A	MAIN BOARD, COMPLETE	
54	1-773-041-11	WIRE (FLAT TYPE) (17 CORE)	
55	3-703-244-00	BUSHING (FBS001), CORD (SP,MY,EA,HK,TW)	
55	4-966-266-01	BUSHING (S) (FBS002), CORD (IA)	
* 56	4-988-533-01	HOLDER, PWB	
57	4-965-822-01	FOOT	
⚠58	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)	
⚠58	1-569-008-21	ADAPTOR, CONVERSION 2P (SP,MY,EA,TW)	
⚠58	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
⚠59	1-558-943-41	CORD, POWER (IA)	
⚠59	1-575-651-21	CORD, POWER (SP,MY,EA,HK,TW)	
60	1-783-898-11	WIRE (FLAT TYPE) (15 CORE)	
⚠T501	1-431-828-11	TRANSFORMER, POWER	

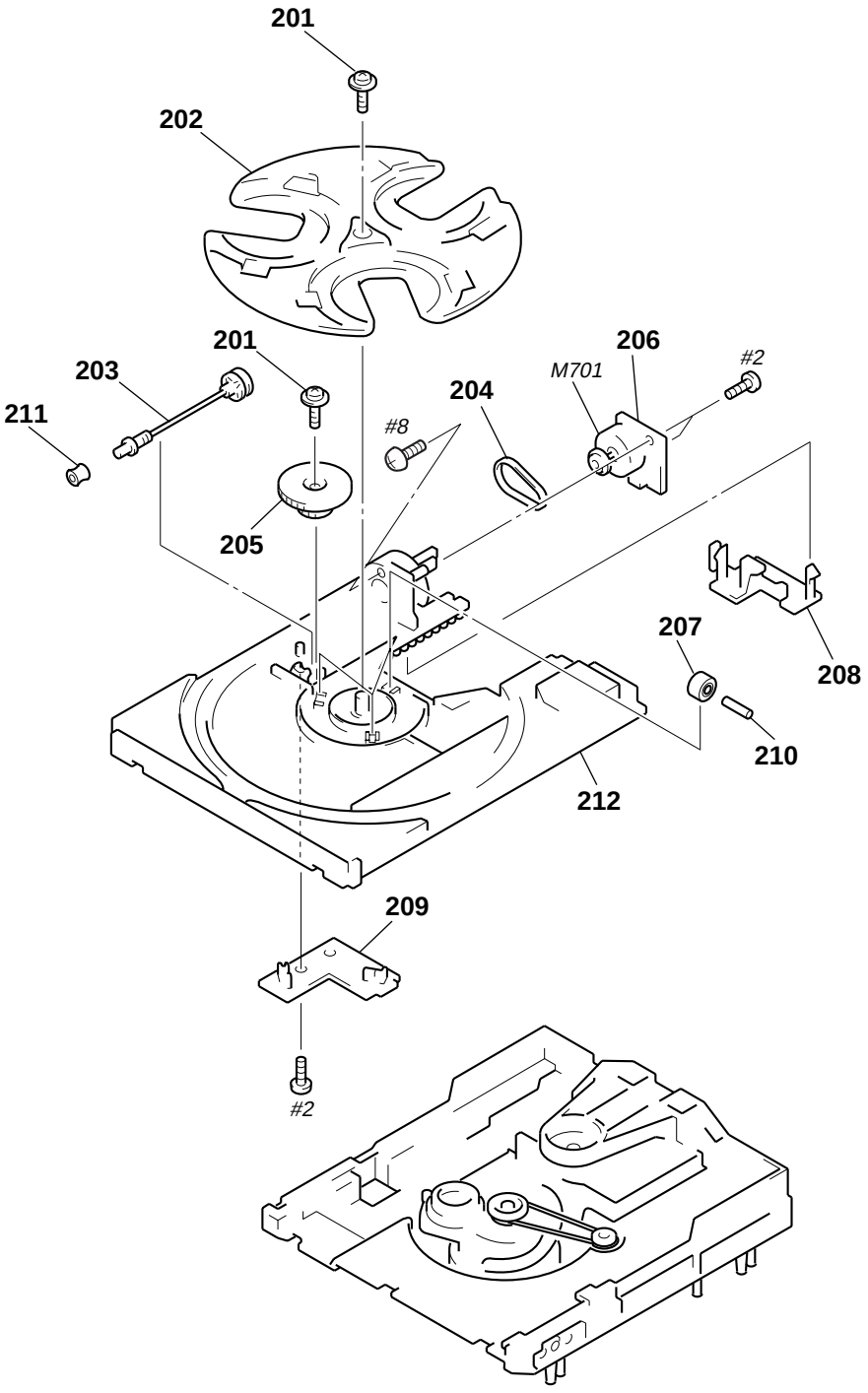
9-3. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
101	4-996-808-01	WINDOW (TCL)	
102	4-996-809-01	WINDOW (TCR)	
103	4-996-799-01	LID (A), CASSETTE	
104	4-996-800-01	LID (B), CASSETTE	
105	4-900-600-01	SPRING (A DECK)	
106	4-900-601-01	SPRING (B DECK)	
107	4-959-229-11	DETENT, CASSETTE	
108	4-996-810-01	KNOB (JOG)	
109	4-996-811-01	KNOB (VOL)	
110	X-4949-982-1	PANEL ASSY, FRONT	
111	4-962-708-21	EMBLEM (4-A), SONY	
112	4-988-663-01	FOOT (FELT)	
113	A-4407-476-A	CONT COM BOARD, COMPLETE	
* 114	1-668-269-11	DECO BOARD	
115	4-996-812-01	HOLDER (LED)	
116	4-996-716-01	HOLDER (CDM)	

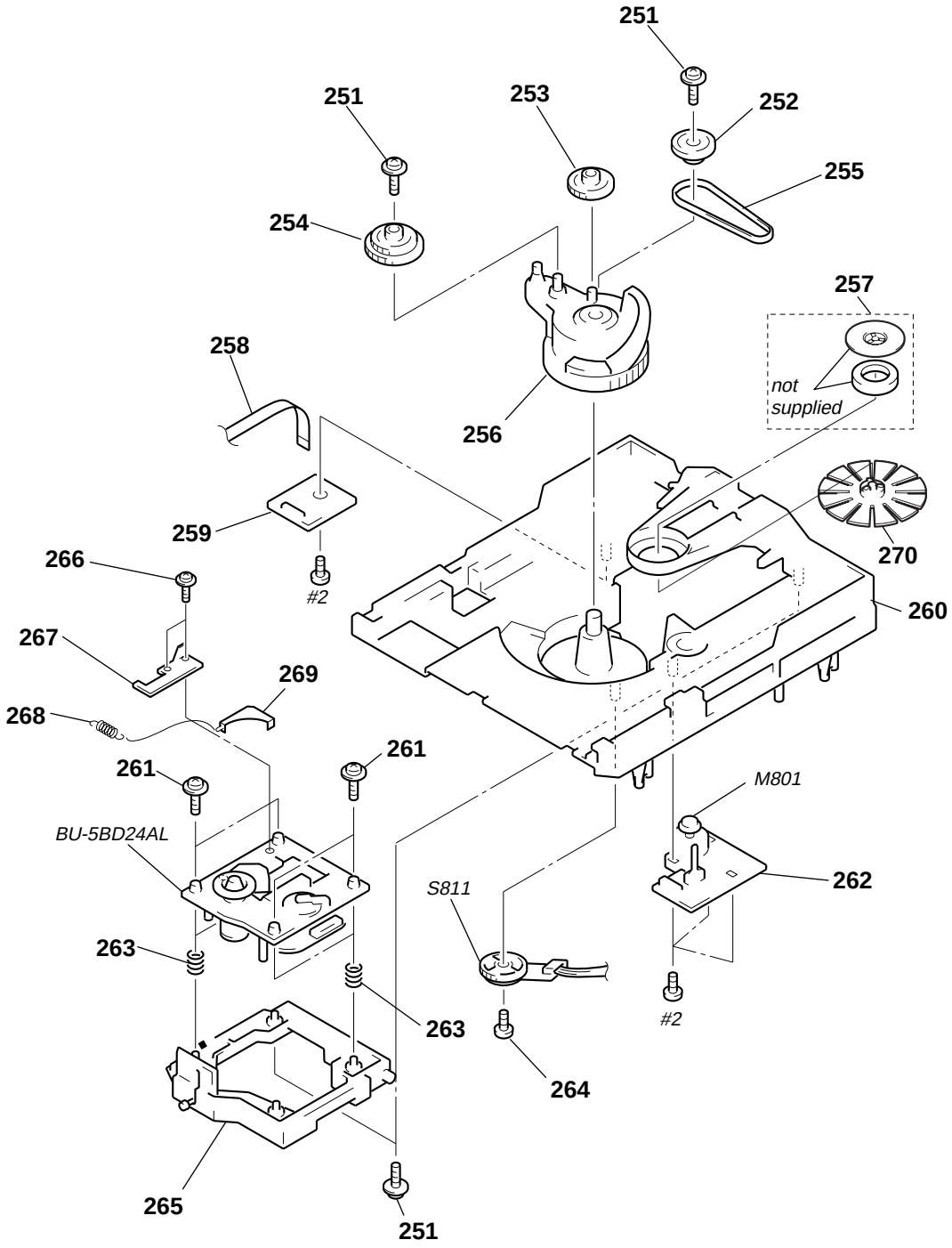
Ref. No.	Part No.	Description	Remark
* 117	1-668-268-11	CD SW BOARD	
* 118	A-4414-042-A	PANEL BOARD, COMPLETE	
* 119	4-996-796-11	HOLDER, FL TUBE	
* 120	4-932-810-31	CUSHION (FL)	
121	1-769-972-11	WIRE (FLAT TYPE) (13 CORE)	
* 122	3-973-975-21	DAMPER, OIL	
123	4-951-620-01	SCREW (2.6X8), +BVTP	
* 124	1-668-271-11	HP BOARD	
125	4-986-893-51	KNOB (MICROPHONE)	
* 126	A-4414-041-A	MIC BOARD, COMPLETE	
127	X-4949-941-1	LID (L) ASSY, CASSETTE	
128	X-4949-942-1	LID (R) ASSY, CASSETTE	
129	4-995-081-01	LATCH, DC	
130	1-773-108-11	WIRE (FLAT TYPE) (19 CORE)	
ND601	1-517-731-21	INDICATOR TUBE, FLUORESCENT	

9-4. CD MECHANISM DECK SECTION-1 (CDM38L-5BD24AL)



Ref. No.	Part No.	Description	Remark
201	4-981-789-01	BRACKET (2), YOKE	
202	4-977-945-01	TRAY (TURN)	
203	X-4946-665-1	SHAFT ASSY, WORM	
204	4-977-943-01	BELT (TURN) (1.2)	
205	4-977-956-01	WHEEL, WORM	
* 206	1-658-577-11	MOTOR (TURN) BOARD	
207	4-988-162-01	ROLLER	
208	4-977-941-01	BEARING (WORM)	
* 209	1-658-576-11	SENSOR BOARD	
210	4-934-376-01	SHAFT (ROLLER)	
211	4-981-187-01	COLLAR (WORM)	
212	4-977-944-01	TRAY (SLIDE)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	

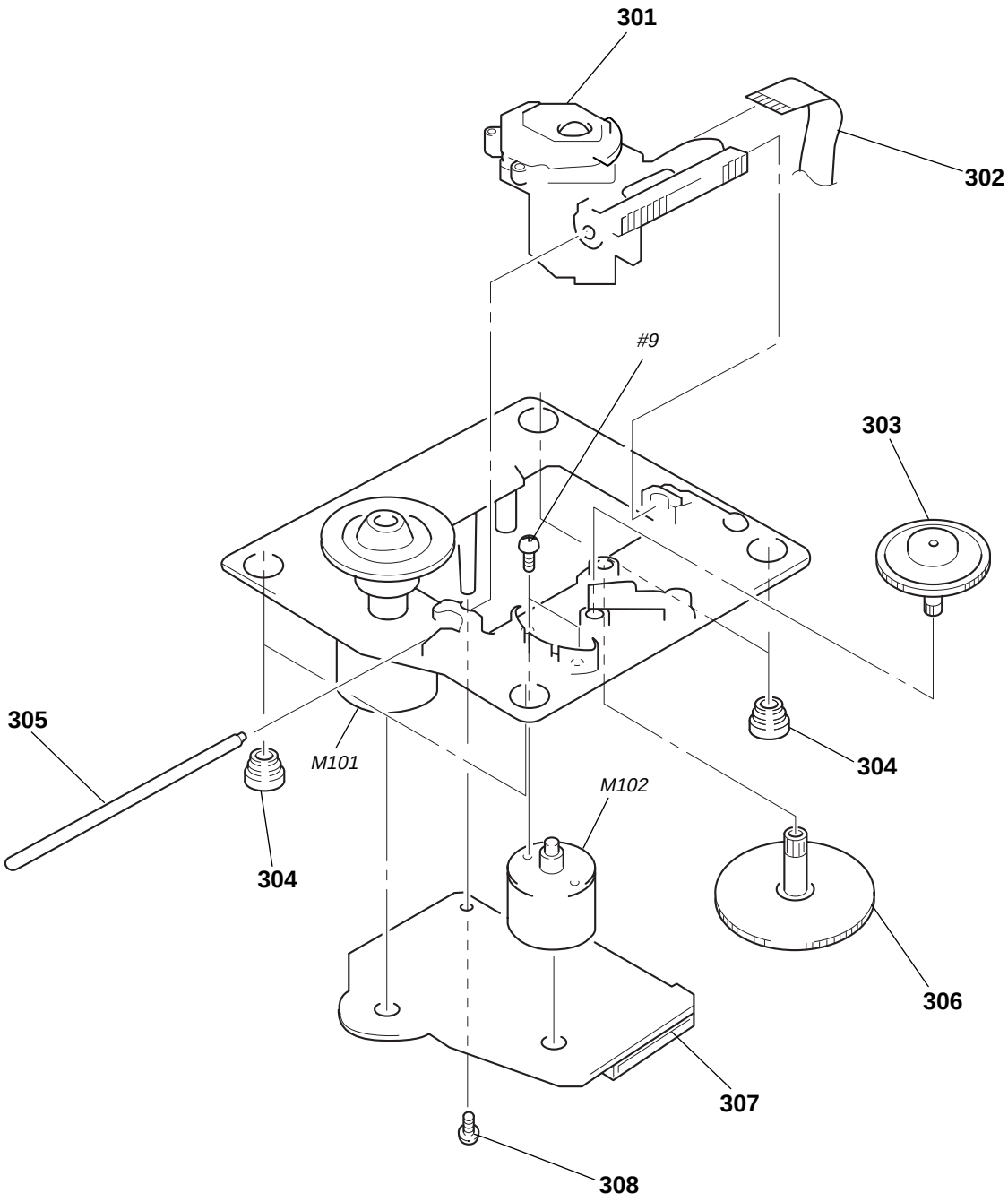
9-5. CD MECHANISM DECK SECTION-2 (CDM38L-5BD24AL)



Ref. No.	Part No.	Description	Remark
251	4-917-583-71	BRACKET, YOKE	
252	4-977-954-01	PULLEY (SL)	
253	4-977-953-01	GEAR (SL-A)	
254	4-977-955-01	GEAR (SL-B)	
255	4-977-942-01	BELT (SL) (1.4)	
256	X-4946-667-1	CAM ASSY, BU	
257	1-452-879-11	MAGNET	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
* 259	1-658-575-11	CONNECTOR BOARD	
* 260	X-4946-668-1	CHASSIS (CDM) ASSY	
261	4-985-672-01	SCREW (+PTPWH M2.6X6), FLOATING	

Ref. No.	Part No.	Description	Remark
* 262	1-658-578-11	MOTOR (SLIDE) BOARD	
263	4-982-447-01	SPRING (BU), COMPRESSION	
264	4-951-620-41	SCREW (2.6), +BVTP	
* 265	X-4946-666-1	HOLDER (BU) ASSY	
266	4-989-494-01	SCREW (SLIDER), STEP	
267	4-989-492-21	SLIDER (38)	
268	4-989-819-02	SPRING, TENSION	
269	4-989-491-21	COVER, LENS	
270	4-994-963-01	PULLEY (LBT), PRESS	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	

9-6. BASE UNIT SECTION (BU-5BD24AL)

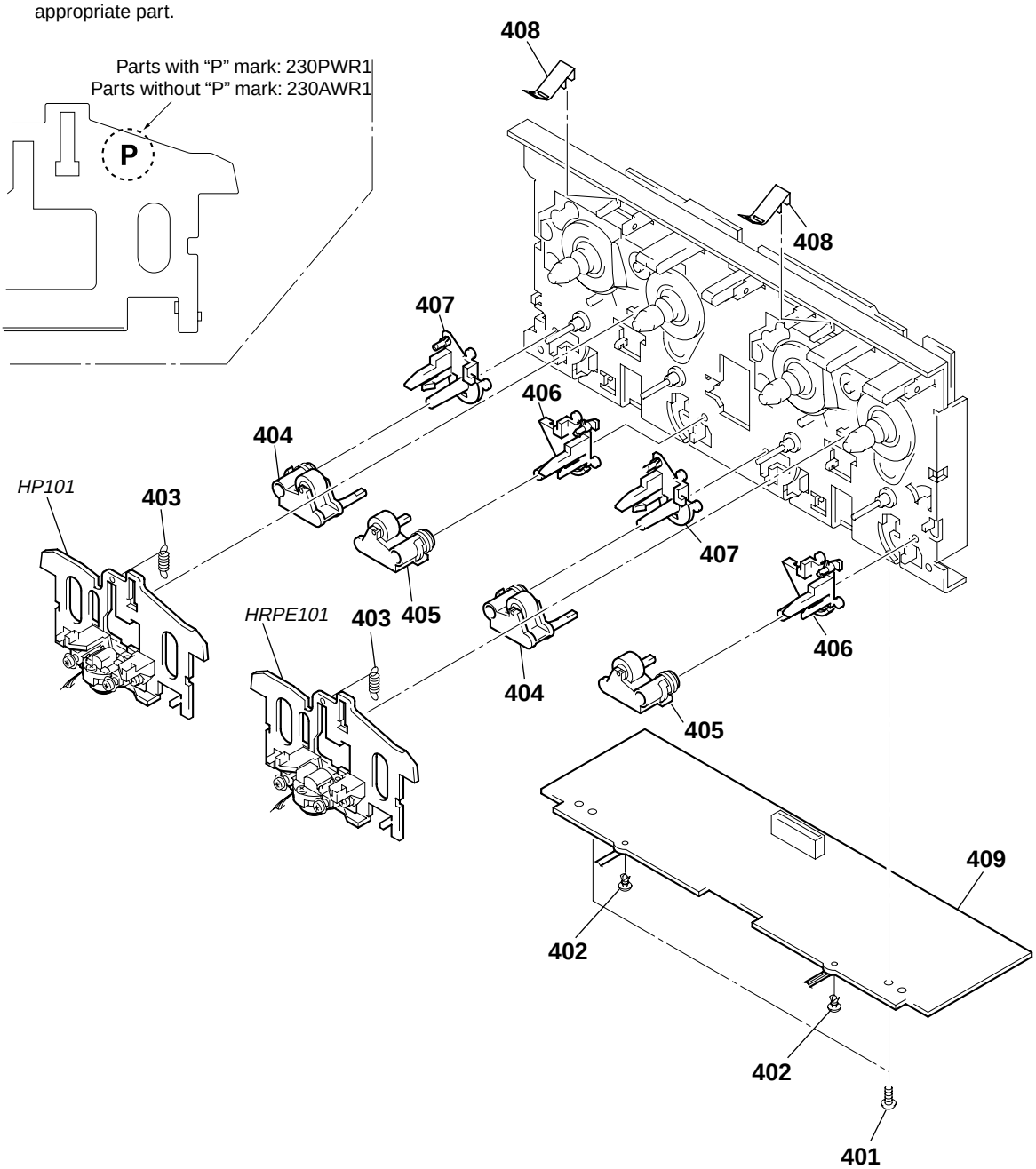


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
⚠301	8-820-020-02	OPTICAL PICK-UP BLOCK KSS-213D/Q-NP	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
303	4-917-567-01	GEAR (M)	
304	4-951-940-01	INSULATOR (BU)	
305	4-917-565-01	SHAFT, SLED	
306	4-917-564-01	GEAR (P), FLATNESS	
* 307	A-4699-697-A	BD BOARD, COMPLETE	
308	4-951-620-01	SCREW (2.6X8), +BVTP	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	

9-7. TC MECHANISM SECTION 1 (TCM230AWR1 TCM230PWR1)

*NOTE: Two types of parts which are not interchangeable are available for the Head deck (A) ASSY and Head deck (B) ASSY. When replacing the parts, refer to the following figure, and use the appropriate part.



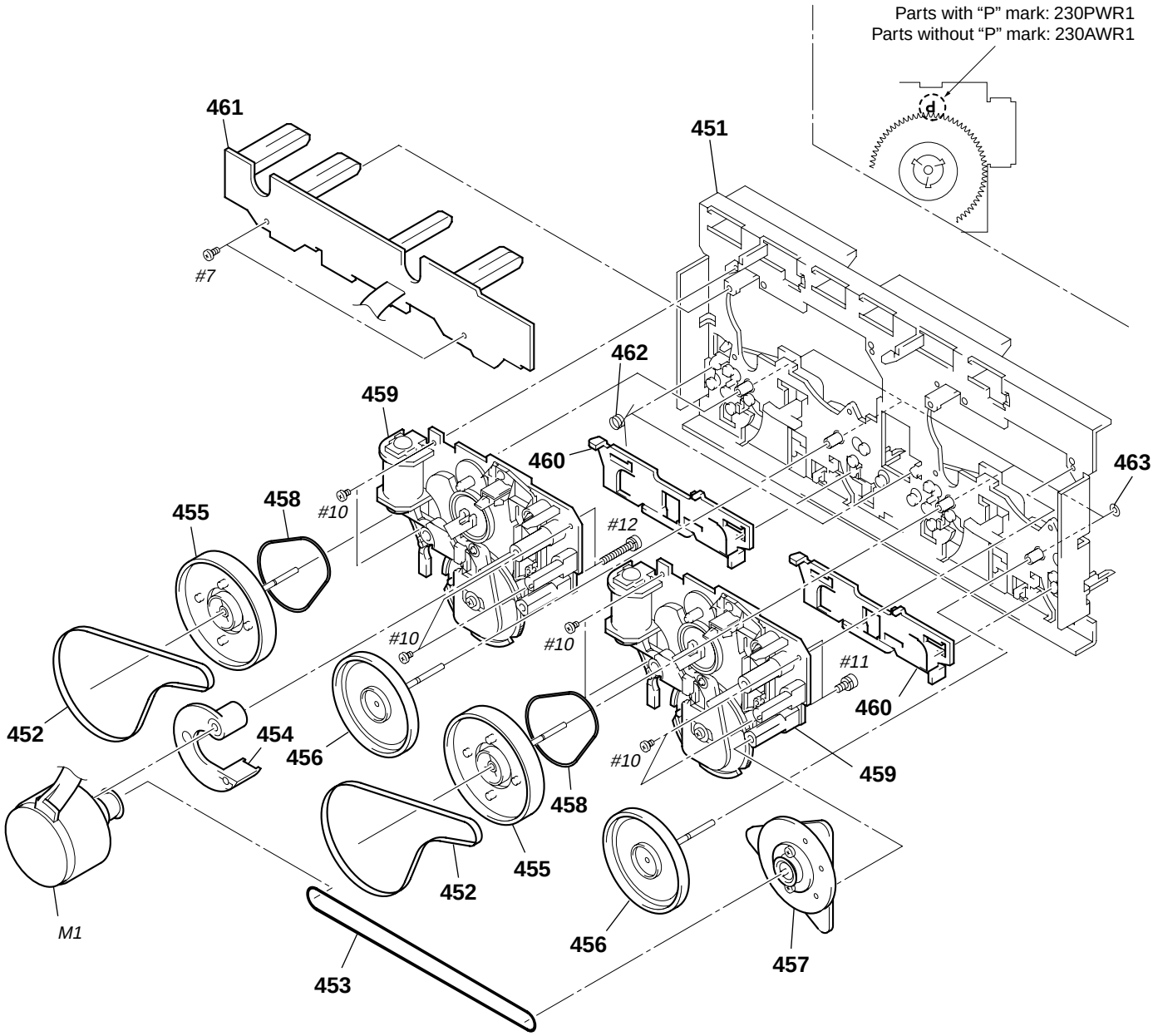
Ref. No.	Part No.	Description	Remark
401	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
402	3-911-116-21	RIVET, PUSH	
403	3-016-574-01	SPRING (HEAD), TENSION	
404	X-3374-156-2	PINCH LEVER (REV) ASSY	
405	X-3374-155-2	PINCH LEVER (FWD) ASSY	
406	3-016-564-01	BASE (PINCH LEVER FWD)	
407	3-016-565-01	BASE (PINCH LEVER REV)	

Ref. No.	Part No.	Description	Remark
408	3-016-567-02	SPRING (CASSETTE), LEAF	
* 409	A-2007-731-A	AUDIO BOARD, COMPLETE	
HP101	A-2056-681-A	DECK (A) ASSY, HEAD (230AWR1)(*NOTE)	
HP101	A-2056-683-A	DECK (A) ASSY, HEAD (230PWR1)(*NOTE)	
HRPE101	A-2056-682-A	DECK (B) ASSY, HEAD (230AWR1)(*NOTE)	
HRPE101	A-2056-684-A	DECK (B) ASSY, HEAD (230PWR1)(*NOTE)	

9-8. TC MECHANISM SECTION 2 (TCM230AWR1 TCM230PWR1)

***NOTE:** *Two types of parts which are not interchangeable are available for the mechanical block assembly. When replacing the parts, refer to the following figure, and use the appropriate part.*

*NOTE: Two types of parts which are not interchangeable are available for the mechanical block assembly. When replacing the parts, refer to the following figure, and use the appropriate part.



Ref. No.	Part No.	Description	Remark
* 451	X-3374-214-1	CASSIS ASSY, MAIN	
452	3-016-570-01	BELT (CAPSTAN)	
453	3-016-569-01	BELT (TENSION)	
454	3-017-360-01	BRACKET (MOTOR)	
455	X-3374-234-1	FLYWHEEL (FWD) ASSY	
456	X-3374-235-1	FLYWHEEL (REV) ASSY	
457	X-3374-238-1	PULLEY ASSY, TENSION	
458	3-024-405-01	BELT (FR)	

Ref. No.	Part No.	Description	Remark
459	A-2004-629-A	MECHANICAL BLOCK ASSY (230AWR1)(*NOTE)	
459	A-2004-630-A	MECHANICAL BLOCK ASSY (230PWR1)(*NOTE)	
460	3-016-566-01	SLIDER, REVERSE	
* 461	A-2007-732-A	LEAF SW BOARD, COMPLETE	
462	3-016-575-01	SPRING, TORSION	
463	3-019-208-01	WASHER, STOPPER	
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	

SECTION 10
ELECTRICAL PARTS LIST

AUDIO

Note:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

* Note
When replacing IC502, refer to "IC502 of Video Board" in "Service Note" (page 13).

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- CAPACITORS
  uF : µ F
- SEMICONDUCTORS
  In each case, u: µ , for example:
  uA...: µ A..., uPA...: µ PA..., uPB...: µ PB..., uPC...: µ PC..., uPD...: µ PD...
- COILS
  uH : µ H
- Abbreviation
  EA : Saudi Arabia model
  HK : Hong Kong model
  SP : Singapore model
  MY : Malaysia model
  TW : Taiwan model
  IA : Indonesian model

Ref. No.	Part No.	Description			Remark
*	A-2007-731-A	AUDIO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	FILM	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-107-715-11	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	FILM	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-104-396-11	ELECT	10uF	20%	16V
C602	1-104-396-11	ELECT	10uF	20%	16V
C611	1-104-396-11	ELECT	10uF	20%	16V
C612	1-104-396-11	ELECT	10uF	20%	16V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-104-664-11	ELECT	47uF	20%	16V
		< CONNECTOR >			
CN601	1-695-338-11	PIN, CONNECTOR (PC BOARD) 15P			

Ref. No.	Part No.	Description				Remark
		< IC >				
IC601	8-759-111-44	IC UPC4570C-1				
IC602	8-759-143-54	IC UPC1330HA				
IC611	8-759-111-44	IC UPC4570C-1				
		< COIL >				
L331	1-410-780-11	INDUCTOR 27mH				
L431	1-410-780-11	INDUCTOR 27mH				
L601	1-414-193-41	INDUCTOR, MICRO 22uH				
L602	1-414-193-41	INDUCTOR, MICRO 22uH				
		< TRANSISTOR >				
Q621	8-729-142-46	TRANSISTOR 2SC2001-LK				
Q622	8-729-142-46	TRANSISTOR 2SC2001-LK				
Q623	8-729-801-93	TRANSISTOR 2SD1387				
		< RESISTOR >				
R301	1-247-881-00	CARBON	120K	5%	1/4W	
R302	1-249-409-11	CARBON	220	5%	1/4W	F
R303	1-249-433-11	CARBON	22K	5%	1/4W	
R304	1-247-889-00	CARBON	270K	5%	1/4W	
R305	1-247-858-11	CARBON	13K	5%	1/4W	
R311	1-247-881-00	CARBON	120K	5%	1/4W	
R312	1-247-807-31	CARBON	100	5%	1/4W	
R314	1-247-882-11	CARBON	130K	5%	1/4W	
R315	1-247-850-11	CARBON	6.2K	5%	1/4W	
R331	1-249-430-11	CARBON	12K	5%	1/4W	
R401	1-247-881-00	CARBON	120K	5%	1/4W	
R402	1-249-409-11	CARBON	220	5%	1/4W	F
R403	1-249-433-11	CARBON	22K	5%	1/4W	
R404	1-247-889-00	CARBON	270K	5%	1/4W	
R405	1-247-858-11	CARBON	13K	5%	1/4W	
R411	1-247-881-00	CARBON	120K	5%	1/4W	
R412	1-247-807-31	CARBON	100	5%	1/4W	
R414	1-247-882-11	CARBON	130K	5%	1/4W	
R415	1-247-850-11	CARBON	6.2K	5%	1/4W	
R431	1-249-430-11	CARBON	12K	5%	1/4W	
R601	1-249-409-11	CARBON	220	5%	1/4W	F
R602	1-249-409-11	CARBON	220	5%	1/4W	F
R608	1-249-409-11	CARBON	220	5%	1/4W	F
R609	1-249-433-11	CARBON	22K	5%	1/4W	
R611	1-249-409-11	CARBON	220	5%	1/4W	F
R612	1-249-409-11	CARBON	220	5%	1/4W	F

AUDIO BD

Ref. No.	Part No.	Description			Remark
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-241-768-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-241-768-11	RES, ADJ, CARBON 220K			
		< TRANSFORMER >			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
**********					
*	A-4699-697-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C105	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C106	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-164-346-11	CERAMIC CHIP	1uF		16V
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C109	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT CHIP	100uF	20%	4V
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C119	1-163-091-00	CERAMIC CHIP	8PF		50V
C120	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C121	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C123	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C125	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C140	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C141	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C151	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C153	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C156	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C157	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C162	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
CN101	1-770-706-11	CONNECTOR, FFC/FPC 23P			
CN102	1-770-425-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC101	8-752-369-78	IC CXD2545Q			
IC102	8-759-455-91	IC BA6392FP			
IC103	8-752-072-45	IC CXA1821M-T6			
IC104	8-759-271-86	IC TC7SH04FU			
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-R			
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q103	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-91	RES,CHIP	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-097-91	RES,CHIP	100K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W
R109	1-216-121-91	RES,CHIP	1M	5%	1/10W
R110	1-216-025-91	RES,CHIP	100	5%	1/10W
R112	1-216-049-91	RES,CHIP	1K	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-91	RES,CHIP	100K	5%	1/10W
R125	1-216-033-00	METAL CHIP	220	5%	1/10W
R126	1-216-033-00	METAL CHIP	220	5%	1/10W
R127	1-216-033-00	METAL CHIP	220	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R134	1-216-049-91	RES,CHIP	1K	5%	1/10W
R141	1-216-089-91	RES,CHIP	47K	5%	1/10W
R142	1-216-081-00	METAL CHIP	22K	5%	1/10W
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R146	1-216-073-00	METAL CHIP	10K	5%	1/10W
R147	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-003-11	RES,CHIP	12	5%	1/10W
R150	1-216-025-91	RES,CHIP	100	5%	1/10W
R151	1-216-025-91	RES,CHIP	100	5%	1/10W
R152	1-216-073-00	METAL CHIP	10K	5%	1/10W
R153	1-216-073-00	METAL CHIP	10K	5%	1/10W
R154	1-216-025-91	RES,CHIP	100	5%	1/10W
R155	1-216-025-91	RES,CHIP	100	5%	1/10W
R156	1-216-025-91	RES,CHIP	100	5%	1/10W
R158	1-216-109-00	METAL CHIP	330K	5%	1/10W
R159	1-216-097-91	RES,CHIP	100K	5%	1/10W
R160	1-216-295-91	SHORT	0		
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
R171	1-216-025-91	RES,CHIP	100	5%	1/10W
R172	1-216-025-91	RES,CHIP	100	5%	1/10W
R173	1-216-025-91	RES,CHIP	100	5%	1/10W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
R175	1-216-025-91	RES,CHIP	100	5%	1/10W
R176	1-216-073-00	METAL CHIP	10K	5%	1/10W
R177	1-216-073-00	METAL CHIP	10K	5%	1/10W
R178	1-216-073-00	METAL CHIP	10K	5%	1/10W
R179	1-216-025-91	RES,CHIP	100	5%	1/10W
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			

****

*	1-668-268-11	CD SW BOARD			
		**********			
		< DIODE >			
D631	8-719-056-13	DIODE SML79423C-TP15 (DISC 1)			
D632	8-719-056-13	DIODE SML79423C-TP15 (DISC 2)			
D633	8-719-056-13	DIODE SML79423C-TP15 (DISC 3)			
		< JUMPER RESISTOR >			
JW901	1-216-296-91	SHORT 0			
JW902	1-216-295-91	SHORT 0			
		< TRANSISTOR >			
Q613	8-729-027-60	TRANSISTOR DTC144TKA-T146			
Q614	8-729-027-60	TRANSISTOR DTC144TKA-T146			
Q615	8-729-027-60	TRANSISTOR DTC144TKA-T146			
		< RESISTOR >			
R656	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R657	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R658	1-216-063-91	METAL CHIP	3.9K	5%	1/10W
R659	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R660	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R691	1-216-027-00	METAL CHIP	120	5%	1/10W
R692	1-216-027-00	METAL CHIP	120	5%	1/10W
R693	1-216-027-00	METAL CHIP	120	5%	1/10W
R694	1-216-027-00	METAL CHIP	120	5%	1/10W
R695	1-216-027-00	METAL CHIP	120	5%	1/10W
R696	1-216-027-00	METAL CHIP	120	5%	1/10W
		< SWITCH >			
S637	1-762-875-21	SWITCH, KEYBOARD (I/⏻)			
S638	1-762-875-21	SWITCH, KEYBOARD (DISC 1)			
S639	1-762-875-21	SWITCH, KEYBOARD (DISC 2)			
S640	1-762-875-21	SWITCH, KEYBOARD (DISC 3)			
S641	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)			
S642	1-762-875-21	SWITCH, KEYBOARD (⏏)			

****

Ref. No.	Part No.	Description			Remark
*	1-658-575-11	CONNECTOR BOARD			
		**********			
		< CONNECTOR >			
* CN701	1-568-946-11	PIN, CONNECTOR 8P			
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P			
		< TRANSISTOR >			
Q701	8-729-900-80	TRANSISTOR DTC114ES			
		< RESISTOR >			
R703	1-249-435-11	CARBON	33K	5%	1/4W
R704	1-249-429-11	CARBON	10K	5%	1/4W
R705	1-249-417-11	CARBON	1K	5%	1/4W F

****

*	A-4407-476-A	CONT COM BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C627	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C628	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C629	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C630	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
		< CONNECTOR >			
* CN608	1-568-862-11	SOCKET, CONNECTOR 19P			
		< DIODE >			
D610	8-719-063-93	DIODE SLR325VC-N-T32 (ENTER/NEXT)			
D612	8-719-057-97	DIODE SEL5923A-TP15 (GROOVE)			
D613	8-719-063-93	DIODE SLR325VC-N-T32 (JOG)			
D614	8-719-064-65	DIODE SELU5723C-TP15 (DJ MIX)			
D615	8-719-064-65	DIODE SELU5723C-TP15 (DJ MIX)			
D616	8-719-063-93	DIODE SLR325VC-N-T32 (NON-STOP)			
D617	8-719-057-97	DIODE SEL5923A-TP15 (– ◀◀)			
D618	8-719-057-97	DIODE SEL5923A-TP15 (+ ▶▶)			
D801	8-719-057-97	DIODE SEL5923A-TP15 (ON/OFF)			
D802	8-719-057-97	DIODE SEL5923A-TP15 (JAM)			
D803	8-719-056-13	DIODE SML79423C-TP15 (AUTO BPM)			
		< TRANSISTOR >			
Q604	8-729-027-60	TRANSISTOR DTC144TKA-T146			
Q854	8-729-027-23	TRANSISTOR DTA114EKA-T146			
Q855	8-729-027-23	TRANSISTOR DTA114EKA-T146			
		< RESISTOR >			
R637	1-216-039-00	METAL CHIP	390	5%	1/10W
R638	1-216-041-00	METAL CHIP	470	5%	1/10W
R639	1-216-045-00	METAL CHIP	680	5%	1/10W
R640	1-216-047-91	RES,CHIP	820	5%	1/10W
R641	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R642	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R643	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R644	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R645	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R646	1-216-067-00	METAL CHIP	5.6K	5%	1/10W

CONT COM **DECO** **HP** **LEAF SW**

Ref. No.	Part No.	Description			Remark
R647	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R648	1-216-075-00	METAL CHIP	12K	5%	1/10W
R666	1-216-037-00	METAL CHIP	330	5%	1/10W
R667	1-216-029-00	METAL CHIP	150	5%	1/10W
R668	1-216-027-00	METAL CHIP	120	5%	1/10W
R669	1-216-019-00	METAL CHIP	56	5%	1/10W
R670	1-216-037-00	METAL CHIP	330	5%	1/10W
R671	1-216-031-00	METAL CHIP	180	5%	1/10W
R811	1-216-029-00	METAL CHIP	150	5%	1/10W
R812	1-216-029-00	METAL CHIP	150	5%	1/10W
R813	1-216-029-00	METAL CHIP	150	5%	1/10W
R814	1-216-029-00	METAL CHIP	150	5%	1/10W
R821	1-216-039-00	METAL CHIP	390	5%	1/10W
R822	1-216-041-00	METAL CHIP	470	5%	1/10W
R823	1-216-045-00	METAL CHIP	680	5%	1/10W
R831	1-216-039-00	METAL CHIP	390	5%	1/10W
R832	1-216-041-00	METAL CHIP	470	5%	1/10W
R833	1-216-045-00	METAL CHIP	680	5%	1/10W
		< SWITCH >			
S601	1-473-534-11	ENCODER, ROTARY (JOG)			
S602	1-473-392-11	ENCODER, ROTARY (VOLUME)			
S617	1-762-875-21	SWITCH, KEYBOARD (CD LOOP)			
S618	1-762-875-21	SWITCH, KEYBOARD (CD FLASH)			
S619	1-762-875-21	SWITCH, KEYBOARD (CD NON-STOP)			
S621	1-762-875-21	SWITCH, KEYBOARD (– ◀◀)			
S622	1-762-875-21	SWITCH, KEYBOARD (ENTER/NEXT)			
S623	1-762-875-21	SWITCH, KEYBOARD (+ ▶▶)			
S624	1-762-875-21	SWITCH, KEYBOARD (DBFB)			
S625	1-762-875-21	SWITCH, KEYBOARD (GROOVE)			
S626	1-762-875-21	SWITCH, KEYBOARD (ACTIVE)			
S627	1-762-875-21	SWITCH, KEYBOARD (SELECT)			
S628	1-762-875-21	SWITCH, KEYBOARD (RETURN)			
S629	1-762-875-21	SWITCH, KEYBOARD (PREV)			
S630	1-762-875-21	SWITCH, KEYBOARD (NEXT)			
S801	1-762-875-21	SWITCH, KEYBOARD (PAD-B)			
S802	1-762-875-21	SWITCH, KEYBOARD (BEAT LEVEL)			
S803	1-762-875-21	SWITCH, KEYBOARD (JAM-BEAT)			
S804	1-762-875-21	SWITCH, KEYBOARD (AUTO BPM)			
S805	1-762-875-21	SWITCH, KEYBOARD (PAD-A)			
S806	1-762-875-21	SWITCH, KEYBOARD (ON/OFF-BEAT)			
S807	1-762-875-21	SWITCH, KEYBOARD (SELECT-BEAT)			
S808	1-762-875-21	SWITCH, KEYBOARD (SPEED-BEAT)			
		< CONNECTOR >			
W601	1-775-377-61	LEAD (WITH CONNECTOR)			

****

*	1-668-269-11	DECO BOARD			
		**********			
		< DIODE >			
D640	8-719-063-93	DIODE SLR325VC-N-T32 (CENTER)			
D641	8-719-032-86	DIODE SEL5420E (LEFT)			
D642	8-719-032-86	DIODE SEL5420E (LEFT)			
D643	8-719-032-86	DIODE SEL5420E (LEFT)			
D644	8-719-033-06	DIODE SEL5920A (CENTER)			
D655	8-719-033-06	DIODE SEL5920A (RIGHT)			
D656	8-719-033-06	DIODE SEL5920A (RIGHT)			
		< TRANSISTOR >			
Q856	8-729-027-60	TRANSISTOR DTC144TKA-T146			
Q857	8-729-027-60	TRANSISTOR DTC144TKA-T146			
		< RESISTOR >			
R706	1-216-019-00	METAL CHIP	56	5%	1/10W
R707	1-216-019-00	METAL CHIP	56	5%	1/10W
R708	1-216-041-00	METAL CHIP	470	5%	1/10W
R709	1-216-027-00	METAL CHIP	120	5%	1/10W
R710	1-216-027-00	METAL CHIP	120	5%	1/10W

****

*	1-668-271-11	HP BOARD			
		********			
		< CAPACITOR >			
C790	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C791	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C792	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN752	1-506-469-11	PIN, CONNECTOR 4P			
		< GROUND PLATE >			
* EP751	1-537-738-21	TERMINAL, EARTH			
		< JACK >			
J755	1-785-200-11	JACK (LARGE TYPE)(PHONES)			

****

*	A-2007-732-A	LEAF SW BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1001	1-128-124-11	ELECT	33uF	20%	10V
		< CONNECTOR >			
CN1001	1-568-860-11	SOCKET, CONNECTOR 17P			
CN1001	1-784-459-11	CONNECTOR, FFC/FPC 17P			
		< DIODE >			
D1001	8-719-911-19	DIODE 1SS119			
D1002	8-719-911-19	DIODE 1SS119			
		< CONNECTOR >			
* DM1001	1-784-581-11	HOLDER, CABLE (2.5MM PITCH) 4P			
		< IC >			
IC1001	8-749-014-38	IC PHOTO INTERRUPTER SG-264			
IC1002	8-749-014-38	IC PHOTO INTERRUPTER SG-264			

Ref. No.	Part No.	Description				Remark
		< TRANSISTOR >				
Q1001	8-729-029-56	TRANSISTOR DTA144ESA				
Q1001	8-729-900-65	TRANSISTOR DTA144ES				
		< RESISTOR >				
R907	1-247-879-11	CARBON	100K	5%	1/4W	
R1001	1-249-409-11	CARBON	220	5%	1/4W	F
R1002	1-249-409-11	CARBON	220	5%	1/4W	F
R1003	1-249-414-11	CARBON	560	5%	1/4W	F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W	
R1005	1-247-818-11	CARBON	300	5%	1/4W	
R1006	1-247-864-11	CARBON	24K	5%	1/4W	
R1007	1-247-856-00	CARBON	11K	5%	1/4W	
R1008	1-249-417-11	CARBON	1K	5%	1/4W	F
		< VARIABLE RESISTOR >				
RV1001	1-241-785-11	RES, ADJ, CARBON 10K				
RV1002	1-241-785-11	RES, ADJ, CARBON 10K				
		< SWITCH >				
S1001	1-570-953-11	SWITCH, PUSH (1 KEY) (A PLAY)				
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (B PLAY)				
S1003	1-771-333-11	SWITCH, LEAF (A HALF)				
S1004	1-771-205-11	SWITCH, LEAF (A 120/70)				
S1005	1-771-205-11	SWITCH, LEAF (REC A)				
S1006	1-771-333-11	SWITCH, LEAF (B HALF)				
S1008	1-771-205-11	SWITCH, LEAF (B 120/70)				
S1009	1-771-205-11	SWITCH, LEAF (REC B)				
**********						
*	A-4414-035-A	MAIN BOARD, COMPLETE				
		**********				
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S				
		< CAPACITOR >				
C101	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C102	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C103	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C111	1-137-195-11	FILM	0.56uF	5%	50V	
C112	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V	
C113	1-136-167-00	FILM	0.15uF	5%	50V	
C114	1-163-018-00	CERAMIC CHIP	0.0056uF	5%	50V	
C115	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V	
C116	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V	
C117	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V	
C118	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C119	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	
C120	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V	
C121	1-126-964-11	ELECT	10uF	20%	50V	
C122	1-163-006-11	CERAMIC CHIP	560PF	10%	50V	
C123	1-136-169-00	FILM	0.22uF	5%	50V	
C124	1-136-169-00	FILM	0.22uF	5%	50V	
C125	1-126-964-11	ELECT	10uF	20%	50V	
C131	1-104-665-11	ELECT	100uF	20%	10V	
C132	1-104-665-11	ELECT	100uF	20%	10V	

Ref. No.	Part No.	Description			Remark
C133	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C134	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C135	1-126-964-11	ELECT	10uF	20%	50V
C136	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C137	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C141	1-109-953-11	ELECT	2.2uF	20%	50V
C151	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C152	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C153	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C154	1-216-295-91	SHORT	0		
C161	1-137-195-11	FILM	0.56uF	5%	50V
C162	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C163	1-136-167-00	FILM	0.15uF	5%	50V
C164	1-163-018-00	CERAMIC CHIP	0.0056uF	5%	50V
C165	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C166	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C167	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C168	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C169	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C170	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C171	1-126-964-11	ELECT	10uF	20%	50V
C172	1-163-006-11	CERAMIC CHIP	560PF	10%	50V
C173	1-136-169-00	FILM	0.22uF	5%	50V
C174	1-136-169-00	FILM	0.22uF	5%	50V
C175	1-126-964-11	ELECT	10uF	20%	50V
C176	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C177	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C191	1-126-964-11	ELECT	10uF	20%	50V
C192	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C193	1-126-964-11	ELECT	10uF	20%	50V
C194	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C195	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C196	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C197	1-216-295-91	SHORT	0		
C301	1-126-960-11	ELECT	1uF	20%	50V
C302	1-130-479-00	MYLAR	0.0047uF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-136-165-00	FILM	0.1uF	5%	50V
C305	1-126-964-11	ELECT	10uF	20%	50V
C306	1-126-960-11	ELECT	1uF	20%	50V
C307	1-126-959-11	ELECT	0.47uF	20%	50V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-136-173-00	FILM	0.47uF	5%	50V
C310	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C311	1-126-964-11	ELECT	10uF	20%	50V
C312	1-126-959-11	ELECT	0.47uF	20%	50V
C313	1-130-471-00	MYLAR	0.001uF	5%	50V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-963-11	ELECT	4.7uF	20%	50V
C316	1-104-665-11	ELECT	100uF	20%	10V
C317	1-104-665-11	ELECT	100uF	20%	10V
C320	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C331	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C332	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C333	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C334	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C351	1-126-960-11	ELECT	1uF	20%	50V
C352	1-130-479-00	MYLAR	0.0047uF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C353	1-136-165-00	FILM	0.1uF	5%	50V
C354	1-136-165-00	FILM	0.1uF	5%	50V
C355	1-126-964-11	ELECT	10uF	20%	50V
C356	1-126-960-11	ELECT	1uF	20%	50V
C357	1-126-959-11	ELECT	0.47uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V
C359	1-136-173-00	FILM	0.47uF	5%	50V
C371	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C372	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C373	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C374	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C378	1-126-935-11	ELECT	470uF	20%	6.3V
C382	1-126-925-11	ELECT	470uF	20%	10V
C383	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C384	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C385	1-126-961-11	ELECT	2.2uF	20%	50V
C386	1-126-961-11	ELECT	2.2uF	20%	50V
C389	1-126-935-11	ELECT	470uF	20%	6.3V
C390	1-126-935-11	ELECT	470uF	20%	6.3V
C391	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C392	1-104-665-11	ELECT	100uF	20%	10V
C401	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C402	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C403	1-126-964-11	ELECT	10uF	20%	50V
C411	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C412	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C414	1-126-964-11	ELECT	10uF	20%	50V
C415	1-126-964-11	ELECT	10uF	20%	50V
C501	1-126-916-11	ELECT	1000uF	20%	6.3V
C502	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C503	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C504	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C505	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C506	1-104-665-11	ELECT	100uF	20%	10V
C508	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C901	1-111-235-61	ELECT	10000uF	20%	25V
C902	1-126-943-11	ELECT	2200uF	20%	25V
C903	1-126-964-11	ELECT	10uF	20%	50V
C904	1-126-964-11	ELECT	10uF	20%	50V
C905	1-104-665-11	ELECT	100uF	20%	10V
C906	1-104-665-11	ELECT	100uF	20%	10V
C907	1-126-925-11	ELECT	470uF	20%	10V
C908	1-126-925-11	ELECT	470uF	20%	10V
C911	1-126-964-11	ELECT	10uF	20%	50V
C912	1-126-768-11	ELECT	2200uF	20%	16V
C921	1-126-964-11	ELECT	10uF	20%	50V
C922	1-126-767-11	ELECT	1000uF	20%	16V
C931	1-126-964-11	ELECT	10uF	20%	50V
C932	1-126-916-11	ELECT	1000uF	20%	6.3V
C933	1-126-916-11	ELECT	1000uF	20%	6.3V
C934	1-104-665-11	ELECT	100uF	20%	10V
C935	1-126-964-11	ELECT	10uF	20%	50V
C936	1-126-916-11	ELECT	1000uF	20%	6.3V
C937	1-126-925-11	ELECT	470uF	20%	10V
C941	1-126-964-11	ELECT	10uF	20%	50V
C942	1-104-665-11	ELECT	100uF	20%	10V
C951	1-126-967-11	ELECT	47uF	20%	10V

Ref. No.	Part No.	Description			Remark
C952	1-136-165-00	FILM	0.1uF	5%	50V
C953	1-136-173-00	FILM	0.47uF	5%	50V
C961	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C991	1-216-295-91	SHORT	0		
		< CONNECTOR >			
* CN101	1-568-832-11	SOCKET, CONNECTOR 13P			
CN102	1-784-600-11	SOCKET, CONNECTOR (NON ZIF)15P			
* CN103	1-568-946-11	PIN, CONNECTOR 8P			
* CN104	1-568-947-11	PIN, CONNECTOR 9P			
* CN105	1-568-856-11	SOCKET, CONNECTOR 13P			
CN106	1-568-834-11	SOCKET, CONNECTOR 15P			
* CN107	1-568-836-11	SOCKET, CONNECTOR 17P			
* CN301	1-568-449-11	HOUSING, CONNECTOR(PC BOARD) 3P			
CN901	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P			
CN902	1-770-728-11	CONNECTOR, BOARD TO BOARD 9P			
* CN961	1-564-518-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D502	8-719-988-62	DIODE 1SS355			
D508	8-719-988-62	DIODE 1SS355			
D901	8-719-988-62	DIODE 1SS355			
D931	8-719-988-62	DIODE 1SS355			
D932	8-719-210-33	DIODE EC10DS2			
D951	8-719-988-62	DIODE 1SS355			
D952	8-719-988-62	DIODE 1SS355			
D953	8-719-988-62	DIODE 1SS355			
D954	8-719-988-62	DIODE 1SS355			
D955	8-719-210-33	DIODE EC10DS2			
D956	8-719-988-62	DIODE 1SS355			
		< GROUND TERMINAL >			
* EPT901	4-870-539-11	PLATE, GROUND			
		< COIL >			
FB381	1-414-234-11	INDUCTOR CHIP 0UH			
		< FILTER >			
FL131	1-233-289-21	FILTER, EMI (SMD)			
FL501	1-233-289-21	FILTER, EMI (SMD)			
FL502	1-233-289-21	FILTER, EMI (SMD)			
		< IC >			
IC111	8-759-495-24	IC M62442FP-TP			
IC191	8-759-636-55	IC M5218AFP			
IC301	8-759-495-26	IC HA12215			
IC391	8-749-923-04	IC TOTX178 (CD DIGITAL OUT OPTICAL)			
IC401	8-759-636-55	IC M5218AFP			
IC411	8-759-636-55	IC M5218AFP			
IC501	8-759-546-35	IC uPD780016AYGF014-3BA			
IC901	8-759-450-49	IC BA07T			
IC902	8-759-604-90	IC M5F7907L			
IC911	8-759-231-58	IC TA7812S			
IC921	8-759-604-38	IC M5F78M10			
IC931	8-759-231-53	IC TA7805S			
IC932	8-759-231-53	IC TA7805S			
IC941	8-759-450-49	IC BA07T			

Ref. No.	Part No.	Description	Remark
IC951	8-759-635-63	IC M51943BSL	
		< JACK >	
J101	1-774-411-11	JACK, PIN 6P (VIDEO(AUDIO) IN, MD IN, MD/VIDEO (AUDIO) OUT)	
J191	1-774-785-11	JACK, PIN 1P (SUPER WOOFER)	
		< JUMPER RESISTOR >	
JR1	1-216-295-91	SHORT 0	
JR2	1-216-295-91	SHORT 0	
JR4	1-216-295-91	SHORT 0	
JR5	1-216-295-91	SHORT 0	
		< COIL >	
L372	1-412-032-11	INDUCTOR CHIP 100uH	
L391	1-412-032-11	INDUCTOR CHIP 100uH	
L569	1-412-032-11	INDUCTOR CHIP 100uH	
L570	1-412-032-11	INDUCTOR CHIP 100uH	
L572	1-412-032-11	INDUCTOR CHIP 100uH	
		< TRANSISTOR >	
Q111	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q113	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q141	8-729-422-57	TRANSISTOR UN4111	
Q142	8-729-900-36	TRANSISTOR DTC124ES	
Q143	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q161	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q162	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q163	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q191	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q331	8-729-118-00	TRANSISTOR 2SB1116-L	
Q332	8-729-900-80	TRANSISTOR DTC114ES	
Q333	8-729-118-00	TRANSISTOR 2SB1116-L	
Q334	8-729-900-80	TRANSISTOR DTC114ES	
Q335	8-729-900-80	TRANSISTOR DTC114ES	
Q336	8-729-116-59	TRANSISTOR 2SB1068-TP	
Q337	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q338	8-729-422-57	TRANSISTOR UN4111	
Q339	8-729-900-80	TRANSISTOR DTC114ES	
Q340	8-729-166-59	TRANSISTOR 2SB1068-TP	
Q341	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q342	8-729-422-57	TRANSISTOR UN4111	
Q343	8-729-900-80	TRANSISTOR DTC114ES	
Q411	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q901	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q902	8-729-900-36	TRANSISTOR DTC124ES	
Q903	8-729-040-19	TRANSISTOR RT1N137L-TP	
Q904	8-729-900-63	TRANSISTOR DTA124ES	
Q905	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q911	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q912	8-729-900-36	TRANSISTOR DTC124ES	
Q913	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q931	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q932	8-729-900-36	TRANSISTOR DTC124ES	
Q933	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q934	8-729-900-63	TRANSISTOR DTA124ES	
Q935	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q936	8-729-900-36	TRANSISTOR DTC124ES	
Q937	8-729-900-36	TRANSISTOR DTC124ES	
Q951	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q961	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q962	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		< RESISTOR >	
R101	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R102	1-216-105-91	RES,CHIP 220K 5% 1/10W	
R103	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R104	1-216-105-91	RES,CHIP 220K 5% 1/10W	
R105	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R106	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R111	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R112	1-216-121-91	RES,CHIP 1M 5% 1/10W	
R113	1-216-111-00	METAL CHIP 390K 5% 1/10W	
R114	1-216-044-00	METAL CHIP 620 5% 1/10W	
R115	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R116	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R117	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R118	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R119	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R120	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R121	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R122	1-216-295-91	SHORT 0	
R123	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R131	1-216-025-91	RES,CHIP 100 5% 1/10W	
R132	1-216-025-91	RES,CHIP 100 5% 1/10W	
R133	1-216-025-91	RES,CHIP 100 5% 1/10W	
R134	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R135	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R136	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R137	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R138	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R141	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R142	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R143	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R144	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R151	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R152	1-216-105-91	RES,CHIP 220K 5% 1/10W	
R153	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R154	1-216-105-91	RES,CHIP 220K 5% 1/10W	
R155	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R156	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R161	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R162	1-216-121-91	RES,CHIP 1M 5% 1/10W	
R163	1-216-111-91	RES,CHIP 390K 5% 1/10W	
R164	1-216-044-00	METAL CHIP 620 5% 1/10W	
R165	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R166	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R167	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R168	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R169	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R170	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R171	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R172	1-216-295-91	SHORT 0	
R173	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	

MAIN

Ref. No.	Part No.	Description			Remark
R191	1-216-089-91	RES,CHIP	47K	5%	1/10W
R192	1-216-089-91	RES,CHIP	47K	5%	1/10W
R193	1-216-089-91	RES,CHIP	47K	5%	1/10W
R194	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R195	1-216-073-00	METAL CHIP	10K	5%	1/10W
R196	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R197	1-216-097-91	RES,CHIP	100K	5%	1/10W
R198	1-216-049-91	RES,CHIP	1K	5%	1/10W
R199	1-216-073-00	METAL CHIP	10K	5%	1/10W
R301	1-216-085-00	METAL CHIP	33K	5%	1/10W
R302	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R303	1-216-025-91	RES,CHIP	100	5%	1/10W
R304	1-216-025-91	RES,CHIP	100	5%	1/10W
R305	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R306	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R307	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R308	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R309	1-216-081-00	METAL CHIP	22K	5%	1/10W
R311	1-216-121-91	RES,CHIP	1M	5%	1/10W
R312	1-216-102-00	RES,CHIP	160K	5%	1/10W
R313	1-216-097-91	RES,CHIP	100K	5%	1/10W
R315	1-216-073-00	METAL CHIP	10K	5%	1/10W
R316	1-216-079-00	METAL CHIP	18K	5%	1/10W
R317	1-216-073-00	METAL CHIP	10K	5%	1/10W
R318	1-216-073-00	METAL CHIP	10K	5%	1/10W
R319	1-216-111-00	METAL CHIP	390K	5%	1/10W
R321	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R322	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R324	1-216-094-00	RES,CHIP	75K	5%	1/10W
R325	1-216-089-91	RES,CHIP	47K	5%	1/10W
R326	1-216-089-91	RES,CHIP	47K	5%	1/10W
R327	1-216-089-91	RES,CHIP	47K	5%	1/10W
R328	1-216-094-00	RES,CHIP	75K	5%	1/10W
R329	1-216-049-91	RES,CHIP	1K	5%	1/10W
R330	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R331	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R332	1-216-045-00	METAL CHIP	680	5%	1/10W
R333	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R334	1-216-045-00	METAL CHIP	680	5%	1/10W
R335	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R336	1-216-089-91	RES,CHIP	47K	5%	1/10W
R337	1-216-049-91	RES, CHIP	1K	5%	1/10W
R338	1-216-037-00	METAL CHIP	330	5%	1/10W
R339	1-216-089-91	RES,CHIP	47K	5%	1/10W
R340	1-216-089-91	RES,CHIP	47K	5%	1/10W
R341	1-216-037-00	METAL CHIP	330	5%	1/10W
R342	1-216-089-91	RES,CHIP	47K	5%	1/10W
R343	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R344	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R351	1-216-085-00	METAL CHIP	33K	5%	1/10W
R352	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R353	1-216-025-91	RES,CHIP	100	5%	1/10W
R354	1-216-025-91	RES,CHIP	100	5%	1/10W
R355	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R356	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R357	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R358	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R359	1-216-085-00	METAL CHIP	33K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R371	1-216-049-91	RES,CHIP	1K	5%	1/10W
R372	1-216-049-91	RES,CHIP	1K	5%	1/10W
R381	1-216-025-91	RES,CHIP	100	5%	1/10W
R382	1-216-025-91	RES,CHIP	100	5%	1/10W
R383	1-216-085-00	METAL CHIP	33K	5%	1/10W
R384	1-216-085-00	METAL CHIP	33K	5%	1/10W
R385	1-216-085-00	METAL CHIP	33K	5%	1/10W
R401	1-216-073-00	METAL CHIP	10K	5%	1/10W
R402	1-216-073-00	METAL CHIP	10K	5%	1/10W
R403	1-216-073-00	METAL CHIP	10K	5%	1/10W
R404	1-216-073-00	METAL CHIP	10K	5%	1/10W
R411	1-216-073-00	METAL CHIP	10K	5%	1/10W
R412	1-216-049-91	METAL CHIP	1K	5%	1/10W
R413	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R414	1-216-073-00	METAL CHIP	10K	5%	1/10W
R416	1-216-073-00	METAL CHIP	10K	5%	1/10W
R417	1-216-073-00	METAL CHIP	10K	5%	1/10W
R418	1-216-073-00	METAL CHIP	10K	5%	1/10W
R419	1-216-097-91	RES,CHIP	100K	5%	1/10W
R420	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R506	1-216-025-91	RES,CHIP	100	5%	1/10W
R507	1-216-025-91	RES,CHIP	100	5%	1/10W
R508	1-216-025-91	RES,CHIP	100	5%	1/10W
R513	1-216-109-00	METAL CHIP	330K	5%	1/10W
R526	1-216-025-91	RES,CHIP	100	5%	1/10W
R527	1-216-025-91	RES,CHIP	100	5%	1/10W
R555	1-216-025-91	RES,CHIP	100	5%	1/10W
R556	1-216-025-91	RES,CHIP	100	5%	1/10W
R557	1-216-025-91	RES,CHIP	100	5%	1/10W
R560	1-216-025-91	RES,CHIP	100	5%	1/10W
R561	1-216-025-91	RES,CHIP	100	5%	1/10W
R563	1-216-025-91	RES,CHIP	100	5%	1/10W
R564	1-216-025-91	RES,CHIP	100	5%	1/10W
R565	1-216-025-91	RES,CHIP	100	5%	1/10W
R566	1-216-025-91	RES,CHIP	100	5%	1/10W
R567	1-216-025-91	RES,CHIP	100	5%	1/10W
R568	1-216-025-91	RES,CHIP	100	5%	1/10W
R572	1-216-041-00	RES,CHIP	470	5%	1/10W
R573	1-216-025-91	RES,CHIP	100	5%	1/10W
R575	1-216-025-91	RES,CHIP	100	5%	1/10W
R576	1-216-025-91	RES,CHIP	100	5%	1/10W
R578	1-216-025-91	RES,CHIP	100	5%	1/10W
R579	1-216-025-91	RES,CHIP	100	5%	1/10W
R580	1-216-025-91	RES,CHIP	100	5%	1/10W
R581	1-216-025-91	RES,CHIP	100	5%	1/10W
R595	1-216-025-91	RES,CHIP	100	5%	1/10W
R596	1-216-025-91	RES,CHIP	100	5%	1/10W
R597	1-216-025-91	RES,CHIP	100	5%	1/10W
R598	1-216-025-91	RES,CHIP	100	5%	1/10W
R705	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R729	1-216-295-91	SHORT	0		
R731	1-216-073-00	METAL CHIP	10K	5%	1/10W
R769	1-216-073-00	METAL CHIP	10K	5%	1/10W
R770	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R778	1-216-089-91	RES,CHIP	47K	5%	1/10W
R779	1-216-089-91	RES,CHIP	47K	5%	1/10W
R780	1-216-089-91	RES,CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R781	1-216-089-91	RES,CHIP	47K	5%	1/10W
R800	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R901	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R902	1-216-081-00	METAL CHIP	22K	5%	1/10W
R911	1-216-089-91	RES,CHIP	47K	5%	1/10W
R912	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R931	1-216-049-91	RES,CHIP	1K	5%	1/10W
R932	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R933	1-216-041-00	METAL CHIP	4.70	5%	1/10W
R951	1-216-049-91	RES,CHIP	1K	5%	1/10W
R952	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R953	1-216-025-91	RES,CHIP	100	5%	1/10W
R954	1-216-089-91	RES,CHIP	47K	5%	1/10W
R955	1-216-089-91	RES,CHIP	47K	5%	1/10W
R956	1-216-073-00	METAL CHIP	10K	5%	1/10W
R961	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R962	1-216-079-00	METAL CHIP	18K	5%	1/10W
R963	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
		< VARIABLE RESISTOR >			
RV301	1-241-764-11	RES, ADJ, CARBON 10K			
RV351	1-241-764-11	RES, ADJ, CARBON 10K			
		< VIBRATOR >			
X501	1-579-233-11	VIBRATOR, CERAMIC (5MHz)			
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			

****

*	A-4414-041-A	MIC BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C750	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C751	1-126-957-11	ELECT	0.22uF	20%	50V
C752	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C754	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C755	1-126-957-11	ELECT	0.22uF	20%	50V
C756	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C757	1-163-133-11	CERAMIC CHIP	220PF	5%	50V
C758	1-126-964-11	ELECT	10uF	20%	50V
C759	1-126-959-11	ELECT	0.47uF	20%	50V
C760	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C761	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C762	1-126-961-11	ELECT	2.2uF	20%	50V
C764	1-126-964-11	ELECT	10uF	20%	50V
C765	1-126-960-11	ELECT	1uF	20%	50V
C766	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C767	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C768	1-136-495-11	FILM	0.068uF	5%	50V
C769	1-126-959-11	ELECT	0.47uF	20%	50V
C769	1-136-495-11	FILM	0.068uF	5%	50V
C770	1-126-959-11	ELECT	0.47uF	20%	50V
C771	1-126-967-11	ELECT	47uF	20%	16V
C772	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C773	1-126-967-11	ELECT	47uF	20%	16V
C774	1-136-495-11	FILM	0.068uF	5%	50V
C775	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V

Ref. No.	Part No.	Description			Remark
C776	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C777	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C778	1-126-960-11	ELECT	1uF	20%	50V
C779	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C780	1-126-961-11	ELECT	2.2uF	20%	50V
C782	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
		< DIODE >			
D751	8-719-210-33	DIODE EC10DS2			
D752	8-719-210-33	DIODE EC10DS2			
D753	8-719-210-33	DIODE EC10DS2			
		< FILTER >			
FL751	1-233-289-21	FILTER, CHIP EMI			
		< IC >			
IC750	8-759-636-55	IC M5218AFP			
IC751	8-759-496-41	IC M6585DFP-E1			
		< JACK >			
J750	1-785-200-11	JACK (LARGE TYPE) (MIC 2)			
J751	1-785-200-11	JACK (LARGE TYPE) (MIC 1)			
		< COIL >			
L751	1-412-032-11	INDUCTOR CHIP	100uH		
		< RESISTOR >			
R750	1-216-073-00	METAL CHIP	10K	5%	1/10W
R751	1-216-049-91	RES,CHIP	1K	5%	1/10W
R752	1-216-097-91	RES,CHIP	100K	5%	1/10W
R753	1-216-049-91	RES,CHIP	1K	5%	1/10W
R754	1-216-089-91	RES, CHIP	47K	5%	1/10W
R755	1-216-073-00	METAL CHIP	10K	5%	1/10W
R756	1-216-107-00	METAL CHIP	270K	5%	1/10W
R757	1-216-025-91	RES,CHIP	100	5%	1/10W
R758	1-216-081-00	METAL CHIP	22K	5%	1/10W
R759	1-216-081-00	METAL CHIP	22K	5%	1/10W
R760	1-216-081-00	METAL CHIP	22K	5%	1/10W
R761	1-216-099-00	METAL CHIP	120K	5%	1/10W
R762	1-216-081-00	METAL CHIP	22K	5%	1/10W
R763	1-216-081-00	METAL CHIP	22K	5%	1/10W
R764	1-216-081-00	METAL CHIP	22K	5%	1/10W
R765	1-216-089-91	RES,CHIP	47K	5%	1/10W
R766	1-216-077-00	METAL CHIP	15K	5%	1/10W
R767	1-216-077-00	METAL CHIP	15K	5%	1/10W
R768	1-216-049-91	RES,CHIP	1K	5%	1/10W
R769	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< VARIABLE RESISTOR >			
RV750	1-225-587-11	RES, VAR 50K (MIC LEVEL)			
RV751	1-225-587-11	RES, VAR 50K (ECHO LEVEL)			

****

MOTOR (SLIDE) | MOTOR (TURN) | PANEL

Ref. No.	Part No.	Description			Remark
*	1-658-578-11	MOTOR (SLIDE) BOARD			
		**********			
		< CAPACITOR >			
C801	1-162-306-11	CERAMIC	0.01uF	20%	16V
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V
C805	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN801	1-568-947-11	PIN, CONNECTOR 9P			
		< DIODE >			
D801	8-719-109-89	DIODE RD5.6ESB2			
D804	8-719-911-19	DIODE 1SS119-25			
D805	8-719-911-19	DIODE 1SS119-25			
		< IC >			
IC801	8-759-274-09	IC BA6286N			
		< RESISTOR >			
R801	1-249-401-11	CARBON	47	5%	1/4W F
		< SWITCH >			
S801	1-762-527-11	SWITCH, ROTARY			
**********					
*	1-658-577-11	MOTOR (TURN) BOARD			
		**********			
		< CAPACITOR >			
C701	1-162-306-11	CERAMIC	0.01uF	20%	16V
C702	1-126-964-11	ELECT	10uF	20%	50V
C705	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P			
CN704	1-506-469-11	PIN, CONNECTOR 4P			
		< DIODE >			
D701	8-719-109-69	DIODE RD3.6ES-B2			
		< IC >			
IC701	8-759-633-65	IC M54641L			
		< RESISTOR >			
R706	1-249-411-11	CARBON	330	5%	1/4W
R707	1-249-401-11	CARBON	47	5%	1/4W F
**********					
*	A-4414-042-A	PANEL BOARD, COMPLETE			
		**********			
*	4-932-810-31	CUSHION (FL)			
*	4-996-796-11	HOLDER, FL TUBE			

Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C600	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C601	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C602	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C603	1-124-589-11	ELECT	47uF	20%	16V
C604	1-126-163-11	ELECT	4.7uF	20%	50V
C605	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C606	1-126-160-11	ELECT	1uF	20%	50V
C607	1-126-160-11	ELECT	1uF	20%	50V
C608	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C609	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C610	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C611	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C612	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C613	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C614	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C615	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C616	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C617	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C618	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C619	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C620	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C621	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C625	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C626	1-124-589-11	ELECT	47uF	20%	16V
C631	1-126-157-11	ELECT	10uF	20%	16V
C632	1-126-157-11	ELECT	10uF	20%	16V
C633	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C634	1-126-157-11	ELECT	10uF	20%	16V
C652	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C801	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C802	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C803	1-124-589-11	ELECT	47uF	20%	16V
C804	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C805	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C806	1-126-963-11	ELECT	4.7uF	20%	50V
C807	1-163-017-00	CERAMIC CHIP	4700PF	10%	50V
C808	1-163-017-00	CERAMIC CHIP	4700PF	10%	50V
C809	1-126-967-11	ELECT	47uF	20%	50V
C851	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C852	1-126-935-11	ELECT	470uF	20%	6.3V
C853	1-126-963-11	ELECT	4.7uF	20%	50V
		< CONNECTOR >			
* CN601	1-568-832-11	SOCKET, CONNECTOR 13P			
CN602	1-764-698-11	SOCKET, CONNECTOR 19P			
* CN603	1-568-943-11	PIN, CONNECTOR 5P			
CN604	1-506-486-11	PIN, CONNECTOR 7P			
		< DIODE >			
D601	8-719-058-24	DIODE RB501V-40TE-17			
D602	8-719-210-33	DIODE EC10DS2			
D603	8-719-210-33	DIODE EC10DS2			
D620	8-719-063-93	DIODE SLR325VC-N-T32 (EFFECT)			
D621	8-719-056-13	DIODE SML79423C-TP15 (CD ▶II)			
D622	8-719-058-03	DIODE SEL5423E-TP15 (◀ TAPE B)			
D623	8-719-058-03	DIODE SEL5423E-TP15 (▶ TAPE B)			

Ref. No.	Part No.	Description	Remark
D624	8-719-058-03	DIODE SEL5423E-TP15 (◄ TAPE A)	
D625	8-719-058-03	DIODE SEL5423E-TP15 (► TAPE A)	
D626	8-719-057-97	DIODE SEL5923A-TP15 (PBC)	
D627	8-719-057-97	DIODE SEL5923A-TP15 (PBC OFF)	
D628	8-719-057-97	DIODE SEL5923A-TP15 (VIDEO CD)	
D630	8-719-057-97	DIODE SEL5923A-TP15 (SONIC FORMATION)	
D651	8-719-063-93	DIODE SLR325VC-N-T32 (● REC)	
D652	8-719-057-97	DIODE SEL5923A-TP15 (❚❚ PAUSE)	
D804	8-719-988-62	DIODE 1SS355	
D805	8-719-988-62	DIODE 1SS355	
D806	8-719-988-62	DIODE 1SS355	
D807	8-719-988-62	DIODE 1SS355	
		< FILTER >	
FL601	1-233-289-21	FILTER, CHIP EMI	
FL602	1-233-289-21	FILTER, CHIP EMI	
FL801	1-233-289-21	FILTER, CHIP EMI	
FL802	1-233-289-21	FILTER, CHIP EMI	
FL851	1-233-289-21	FILTER, CHIP EMI	
		< IC >	
IC601	8-759-546-36	IC TMP87CM74AF-6731	
IC602	8-749-011-22	IC GP1U27X	
IC603	8-759-495-25	IC BA3833FP-E2	
IC801	8-759-496-11	IC TMP87CH48DF-4825	
IC851	8-759-498-98	IC MSM6653A-517GS-K	
		< JUMPER RESISTOR >	
JR903	1-216-296-91	SHORT 0	
JR904	1-216-296-91	SHORT 0	
JR905	1-216-296-91	SHORT 0	
JR906	1-216-295-91	SHORT 0	
JR907	1-216-296-91	SHORT 0	
JR908	1-216-296-91	SHORT 0	
JR909	1-216-296-91	SHORT 0	
JR910	1-216-296-91	SHORT 0	
JR911	1-216-296-91	SHORT 0	
JR912	1-216-295-91	SHORT 0	
JR913	1-216-296-91	SHORT 0	
JR914	1-216-296-91	SHORT 0	
JR915	1-216-296-91	SHORT 0	
JR916	1-216-296-91	SHORT 0	
JR917	1-216-296-91	SHORT 0	
JR918	1-216-296-91	SHORT 0	
JR919	1-216-295-91	SHORT 0	
JR920	1-216-295-91	SHORT 0	
JR921	1-216-295-91	SHORT 0	
JR922	1-216-295-91	SHORT 0	
JR923	1-216-296-91	SHORT 0	
JR924	1-216-296-91	SHORT 0	
JR925	1-216-295-91	SHORT 0	
JR926	1-216-295-91	SHORT 0	
JR927	1-216-295-91	SHORT 0	
JR928	1-216-295-91	SHORT 0	
		< COIL >	
L601	1-412-031-11	INDUCTOR CHIP 47uH	
L602	1-412-031-11	INDUCTOR CHIP 47uH	
L851	1-412-031-11	INDUCTOR CHIP 47uH	
		< FLUORECENT INDICATOR >	
ND601	1-517-731-21	INDICATOR TUBE, FLUORESCENT	
		< TRANSISTOR >	
Q601	8-729-118-00	TRANSISTOR 2SB1116-L	
Q602	8-729-118-00	TRANSISTOR 2SB1116-L	
Q603	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q607	8-729-027-60	TRANSISTOR DTC144TKA-T146	
Q608	8-729-027-60	TRANSISTOR DTC144TKA-T146	
Q609	8-729-027-60	TRANSISTOR DTC144TKA-T146	
Q610	8-729-027-60	TRANSISTOR DTC144TKA-T146	
Q611	8-729-027-60	TRANSISTOR DTC144TKA-T146	
Q618	8-729-027-60	TRANSISTOR DTC144TKA-T146	
Q701	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q702	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q851	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q958	1-801-900-53	TRANSISTOR DTC114EKA	
Q959	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q960	8-729-027-23	TRANSISTOR DTA114EKA-T146	
		< RESISTOR >	
R601	1-216-121-91	RES,CHIP 1M 5% 1/10W	
R602	1-216-025-91	RES,CHIP 100 5% 1/10W	
R604	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R605	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R606	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R607	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R608	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R609	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R610	1-216-025-91	RES,CHIP 100 5% 1/10W	
R611	1-216-025-91	RES,CHIP 100 5% 1/10W	
R612	1-216-017-91	RES,CHIP 47 5% 1/10W	
R613	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R614	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R616	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R618	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R619	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R621	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R622	1-216-039-00	METAL CHIP 390 5% 1/10W	
R623	1-216-041-00	METAL CHIP 470 5% 1/10W	
R624	1-216-045-00	METAL CHIP 680 5% 1/10W	
R625	1-216-047-91	METAL CHIP 820 5% 1/10W	
R626	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R627	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R628	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R629	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R630	1-216-063-91	METAL CHIP 3.9K 5% 1/10W	
R631	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R632	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R633	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R636	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R649	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R650	1-216-039-00	METAL CHIP 390 5% 1/10W	
R651	1-216-041-00	METAL CHIP 470 5% 1/10W	
R652	1-216-045-00	METAL CHIP 680 5% 1/10W	
R653	1-216-047-91	METAL CHIP 820 5% 1/10W	

PANEL **POWER**

Ref. No.	Part No.	Description			Remark
R654	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R655	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R661	1-216-089-91	RES,CHIP	47K	5%	1/10W
R662	1-216-089-91	RES,CHIP	47K	5%	1/10W
R663	1-216-049-91	RES,CHIP	1K	5%	1/10W
R664	1-216-049-91	RES,CHIP	1K	5%	1/10W
R665	1-216-089-91	RES,CHIP	47K	5%	1/10W
R673	1-216-037-00	METAL CHIP	330	5%	1/10W
R674	1-216-027-00	METAL CHIP	120	5%	1/10W
R675	1-216-027-00	METAL CHIP	120	5%	1/10W
R676	1-216-027-00	METAL CHIP	120	5%	1/10W
R677	1-216-027-00	METAL CHIP	120	5%	1/10W
R678	1-216-027-00	METAL CHIP	120	5%	1/10W
R679	1-216-027-00	METAL CHIP	120	5%	1/10W
R680	1-216-029-00	METAL CHIP	150	5%	1/10W
R681	1-216-029-00	METAL CHIP	150	5%	1/10W
R682	1-216-029-00	METAL CHIP	150	5%	1/10W
R683	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R684	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R701	1-216-073-00	METAL CHIP	10K	5%	1/10W
R702	1-216-073-00	METAL CHIP	10K	5%	1/10W
R703	1-216-097-91	RES,CHIP	100K	5%	1/10W
R704	1-216-097-91	RES,CHIP	100K	5%	1/10W
R721	1-216-029-00	METAL CHIP	150	5%	1/10W
R723	1-216-075-00	METAL CHIP	12K	5%	1/10W
R724	1-216-039-00	METAL CHIP	390	5%	1/10W
R725	1-216-041-00	METAL CHIP	470	5%	1/10W
R726	1-216-045-00	METAL CHIP	680	5%	1/10W
R727	1-216-047-91	METAL CHIP	820	5%	1/10W
R728	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R729	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R730	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R731	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R742	1-216-027-00	METAL CHIP	120	5%	1/10W
R743	1-216-027-00	METAL CHIP	120	5%	1/10W
R801	1-216-121-91	RES,CHIP	1M	5%	1/10W
R802	1-216-025-91	RES,CHIP	100	5%	1/10W
R803	1-216-025-91	RES,CHIP	100	5%	1/10W
R804	1-216-025-91	RES,CHIP	100	5%	1/10W
R805	1-216-075-00	METAL CHIP	12K	5%	1/10W
R806	1-216-075-00	METAL CHIP	12K	5%	1/10W
R807	1-216-085-00	METAL CHIP	33K	5%	1/10W
R808	1-216-113-00	METAL CHIP	470K	5%	1/10W
R809	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R810	1-216-089-91	RES,CHIP	47K	5%	1/10W
R851	1-216-097-91	RES,CHIP	100K	5%	1/10W
R852	1-216-025-91	RES,CHIP	100	5%	1/10W
R954	1-216-097-91	RES,CHIP	100K	5%	1/10W
R955	1-216-097-91	RES,CHIP	100K	5%	1/10W

< SWITCH >

S604	1-762-875-21	SWITCH, KEYBOARD (SONIC FORMATION)
S605	1-762-875-21	SWITCH, KEYBOARD (SURROUND)
S606	1-762-875-21	SWITCH, KEYBOARD (KARAOKE PON/MPX)
S607	1-762-875-21	SWITCH, KEYBOARD (■)
S608	1-762-875-21	SWITCH, KEYBOARD (P FILE MEMORY)
S609	1-762-875-21	SWITCH, KEYBOARD (GEQ CONTROL)
S610	1-762-875-21	SWITCH, KEYBOARD (FILE SELECT)
S611	1-762-875-21	SWITCH, KEYBOARD (EFFECT)
S612	1-762-875-21	SWITCH, KEYBOARD (DEMO)
S613	1-762-875-21	SWITCH, KEYBOARD (TIMER SELECT)
S614	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)
S615	1-762-875-21	SWITCH, KEYBOARD (CLOCK/TIMER SET)
S616	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)
S631	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)
S632	1-762-875-21	SWITCH, KEYBOARD (CD ►II)
S633	1-762-875-21	SWITCH, KEYBOARD (► TAPE B)
S634	1-762-875-21	SWITCH, KEYBOARD (◄ TAPE B)
S635	1-762-875-21	SWITCH, KEYBOARD (► TAPE A)
S636	1-762-875-21	SWITCH, KEYBOARD (◄ TAPE A)
S652	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE, DOLBY NR, TUNER MEMORY)
S653	1-762-875-21	SWITCH, KEYBOARD (EDIT, DIRECTION)
S654	1-762-875-21	SWITCH, KEYBOARD (REPEAT, STEREO/MONO)
S656	1-762-875-21	SWITCH, KEYBOARD (● REC)
S657	1-762-875-21	SWITCH, KEYBOARD (II PAUSE)
S658	1-762-875-21	SWITCH, KEYBOARD (HI-DUB)
S659	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)

< VIBRATOR >

X501	1-579-125-11	VIBRATOR, CERAMIC (8MHz)
X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)
X851	1-767-353-11	VIBRATOR, CERAMIC (4.09MHz)

****

*	A-4407-260-A	POWER BOARD, COMPLETE			
		**********			
		(SP,MY(Indonesia Product),EA,HK,IA,TW)			
*	A-4407-498-A	POWER BOARD, COMPLETE			
		**********			
		(MY(Malaysia Product))			

< CAPACITOR >

C101	1-130-781-00	FILM	0.22uF	10%	100V
C102	1-130-781-00	FILM	0.22uF	10%	100V
C103	1-164-159-21	CERAMIC	0.1uF		50V
C104	1-164-159-21	CERAMIC	0.1uF		50V
C105	1-126-943-11	ELECT	2200uF	20%	25V
C106	1-162-294-31	CERAMIC	0.001uF	10%	50V
C107	1-162-294-31	CERAMIC	0.001uF	10%	50V
C111	1-126-968-11	ELECT	100uF	20%	50V
C112	1-126-968-11	ELECT	100uF	20%	50V
C113	1-162-294-31	CERAMIC	0.001uF	10%	50V
C114	1-126-967-11	ELECT	47uF	20%	50V
C151	1-128-493-11	ELECT	4700uF	20%	71V
C152	1-128-493-11	ELECT	4700uF	20%	71V
C201	1-128-582-11	ELECT	10uF	20%	100V
C202	1-162-292-31	CERAMIC	680PF	10%	50V
C203	1-162-286-21	CERAMIC	220PF	10%	50V
C204	1-126-967-11	ELECT	47uF	20%	50V
C205	1-126-967-11	ELECT	47uF	20%	50V
C206	1-128-560-11	ELECT	22uF	20%	100V
C207	1-130-493-00	MYLAR	0.068uF	5%	50V
C208	1-130-493-00	MYLAR	0.068uF	5%	50V
C221	1-162-284-31	CERAMIC	150PF	10%	50V

Ref. No.	Part No.	Description			Remark
C222	1-162-284-31	CERAMIC	150PF	10%	50V
C223	1-164-159-21	CERAMIC	0.1uF		50V
C224	1-128-560-11	ELECT	22uF	20%	100V
C228	1-162-284-31	CERAMIC	150PF	10%	50V
C251	1-128-582-11	ELECT	10uF	20%	100V
C252	1-162-292-31	CERAMIC	680PF	10%	50V
C253	1-162-286-21	CERAMIC	220PF	10%	50V
C254	1-126-967-11	ELECT	47uF	20%	50V
C255	1-126-967-11	ELECT	47uF	20%	50V
C256	1-128-560-11	ELECT	22uF	20%	100V
C257	1-130-493-00	MYLAR	0.068uF	5%	50V
C258	1-130-493-00	MYLAR	0.068uF	5%	50V
C301	1-126-934-11	ELECT	220uF	20%	10V
C302	1-126-934-11	ELECT	220uF	20%	10V
C303	1-126-961-11	ELECT	2.2uF	20%	50V
C311	1-126-959-11	ELECT	0.47uF	20%	50V
C331	1-126-924-11	ELECT	330uF	20%	10V
C401	1-126-963-11	ELECT	4.7uF	20%	50V
C412	1-161-494-00	CERAMIC	0.022uF		25V
C413	1-161-494-00	CERAMIC	0.022uF		25V
C414	1-161-494-00	CERAMIC	0.022uF		25V
C415	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
CN201	1-778-981-11	CONNECTOR, BOARD TO BOARD 13P			
CN202	1-770-724-11	CONNECTOR, BOARD TO BOARD 9P			
* CN203	1-573-128-11	PIN, CONNECTOR 5P			
		< DIODE >			
D101	8-719-510-68	DIODE D5SBA204101			
D102	8-719-028-23	DIODE D3SBA20-4101			
D103	8-719-200-82	DIODE 11ES2			
D104	8-719-200-82	DIODE 11ES2			
D111	8-719-200-82	DIODE 11ES2			
D112	8-719-200-82	DIODE 11ES2			
D113	8-719-936-50	DIODE HZS33-2LTD			
D114	8-719-109-89	DIODE RD5.6ESB2			
D201	8-719-991-33	DIODE 1SS133T-77			
D251	8-719-991-33	DIODE 1SS133T-77			
D301	8-719-991-33	DIODE 1SS133T-77			
D311	8-719-991-33	DIODE 1SS133T-77			
D321	8-719-991-33	DIODE 1SS133T-77			
D331	8-719-991-33	DIODE 1SS133T-77			
D332	8-719-991-33	DIODE 1SS133T-77			
D401	8-719-991-33	DIODE 1SS133T-77			
D402	8-719-991-33	DIODE 1SS133T-77			
D404	8-719-991-33	DIODE 1SS133T-77			
D405	8-719-991-33	DIODE 1SS133T-77			
D406	8-719-991-33	DIODE 1SS133T-77			
D407	8-719-911-19	DIODE 1SS119			
D408	8-719-911-19	DIODE 1SS119			
		< GROUND PLATE >			
* EP101	1-537-738-21	TERMINAL, EARTH			
* EP201	1-537-738-21	TERMINAL, EARTH			

Ref. No.	Part No.	Description			Remark
		< IC >			
IC201	8-749-921-68	IC STK-4231MK2			
		< TRANSISTOR >			
Q111	8-729-118-01	TRANSISTOR 2SB1116-K			
Q201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q301	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q303	8-729-900-36	TRANSISTOR DTC124ES			
Q304	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q305	8-729-900-36	TRANSISTOR DTC124ES			
Q306	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q307	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q321	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q322	8-729-900-36	TRANSISTOR DTC124ES			
Q401	8-729-040-20	TRANSISTOR RT1P137L-TP			
Q402	8-729-900-80	TRANSISTOR DTC114ES			
Q403	8-729-040-20	TRANSISTOR RT1P137L-TP			
Q407	8-729-900-80	TRANSISTOR DTC114ES			
Q408	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		< RESISTOR >			
R103	1-249-441-11	CARBON	100K	5%	1/4W
⚠ R111	1-217-637-00	FUSIBLE	1	5%	1/4W F
R112	1-249-417-11	CARBON	1K	5%	1/4W F
R113	1-249-417-11	CARBON	1K	5%	1/4W F
R114	1-247-815-91	CARBON	220	5%	1/4W
R115	1-247-815-91	CARBON	220	5%	1/4W
R116	1-249-425-11	CARBON	4.7K	5%	1/4W F
R201	1-249-417-11	CARBON	1K	5%	1/4W F
R202	1-249-437-11	CARBON	47K	5%	1/4W
R203	1-249-412-11	CARBON	390	5%	1/4W F
R204	1-249-437-11	CARBON	47K	5%	1/4W
R205	1-260-107-11	CARBON	4.7K	5%	1/2W
R206	1-260-107-11	CARBON	4.7K	5%	1/2W
⚠ R207	1-212-881-11	FUSIBLE	100	5%	1/4W F
R208	1-220-893-11	METAL	0.22	10%	5W
R209	1-249-417-11	CARBON	1K	5%	1/4W F
R210	1-249-431-11	CARBON	15K	5%	1/4W
R211	1-249-441-11	CARBON	100K	5%	1/4W
R212	1-260-076-11	CARBON	10	5%	1/2W
⚠ R221	1-217-637-00	FUSIBLE	1	5%	1/4W F
R222	1-260-103-11	CARBON	2.2K	5%	1/2W
R223	1-260-103-11	CARBON	2.2K	5%	1/2W
R224	1-249-425-11	CARBON	4.7K	5%	1/4W F
R251	1-249-417-11	CARBON	1K	5%	1/4W F
R252	1-249-437-11	CARBON	47K	5%	1/4W
R253	1-249-412-11	CARBON	390	5%	1/4W F
R254	1-249-437-11	CARBON	47K	5%	1/4W
R255	1-260-107-11	CARBON	4.7K	5%	1/2W
R256	1-260-107-11	CARBON	4.7K	5%	1/2W
⚠ R257	1-212-881-11	FUSIBLE	100	5%	1/4W F
R258	1-220-893-11	METAL	0.22	10%	5W
R259	1-249-417-11	CARBON	1K	5%	1/4W F
R260	1-249-431-11	CARBON	15K	5%	1/4W
R261	1-249-441-11	CARBON	100K	5%	1/4W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

POWER **SENSOR** **TRANSFORMER** **VIDEO**

Ref. No.	Part No.	Description			Remark
R262	1-260-076-11	CARBON	10	5%	1/2W
R271	1-260-093-11	CARBON	330	5%	1/2W
R272	1-260-093-11	CARBON	330	5%	1/2W
R273	1-260-093-11	CARBON	330	5%	1/2W
R274	1-260-093-11	CARBON	330	5%	1/2W
R301	1-249-429-11	CARBON	10K	5%	1/4W
R302	1-249-425-11	CARBON	4.7K	5%	1/4W F
R303	1-249-429-11	CARBON	10K	5%	1/4W
R304	1-249-429-11	CARBON	10K	5%	1/4W
R305	1-249-425-11	CARBON	4.7K	5%	1/4W F
R306	1-249-441-11	CARBON	100K	5%	1/4W
R308	1-247-903-00	CARBON	1M	5%	1/4W
R310	1-247-903-00	CARBON	1M	5%	1/4W
R311	1-249-441-11	CARBON	100K	5%	1/4W
R312	1-249-419-11	CARBON	1.5K	5%	1/4W F
R313	1-247-863-91	CARBON	22K	5%	1/4W
R314	1-247-863-91	CARBON	22K	5%	1/4W
R315	1-249-439-11	CARBON	68K	5%	1/4W
R316	1-249-437-11	CARBON	47K	5%	1/4W
R321	1-249-440-11	CARBON	82K	5%	1/4W
R322	1-249-441-11	CARBON	100K	5%	1/4W
R323	1-249-441-11	CARBON	100K	5%	1/4W
R331	1-247-890-11	CARBON	300K	5%	1/4W
R332	1-249-429-11	CARBON	10K	5%	1/4W
R333	1-249-431-11	CARBON	15K	5%	1/4W
⚠R401	1-215-893-11	METAL OXIDE	1.5K	5%	2W F
⚠R402	1-215-893-11	METAL OXIDE	1.5K	5%	2W F
⚠R404	1-215-893-11	METAL OXIDE	1.5K	5%	2W F
R405	1-249-429-11	CARBON	10K	5%	1/4W
R406	1-249-437-11	CARBON	47K	5%	1/4W
R407	1-249-437-11	CARBON	47K	5%	1/4W
R408	1-249-440-11	CARBON	82K	5%	1/4W
R409	1-249-440-11	CARBON	82K	5%	1/4W
R429	1-249-437-11	CARBON	47K	5%	1/4W
R431	1-249-437-11	CARBON	47K	5%	1/4W
		< RELAY >			
RY401	1-755-141-11	RELAY			
RY402	1-755-141-11	RELAY			
RY404	1-515-920-11	RELAY (24V)			
		< THERMISTOR >			
THP321	1-807-796-11	THERMISTOR			
		< TERMINAL >			
TM401	1-537-842-11	TERMINAL BOARD (FRONT SPEAKER)			
TM402	1-537-240-11	TERMINAL BOARD (CHECKER PIN) (SURROUND SPEAKER)			
**********					
*	1-658-576-11	SENSOR BOARD			
		**********			
		< IC >			
IC702	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391			
IC703	8-749-924-30	IC PHOTO REFLECTOR GP2S28			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R701	1-249-416-11	CARBON	820	5%	1/4W F
R702	1-249-407-11	CARBON	150	5%	1/4W F
**********					
*	1-668-274-11	TRANSFORMER BOARD			
		**********			
		< CONNECTOR >			
* CN501	1-564-527-11	PLUG, CONNECTOR 12P			
CN502	1-774-108-11	PIN, CONNECTOR (PC BOARD) 2P			
		< FUSE >			
⚠F501	1-532-505-31	FUSE T5AL/250V			
⚠F504	1-532-506-31	FUSE T6.3A/250V			
⚠F505	1-532-506-31	FUSE T6.3A/250V			
		< FUSE HOLDER >			
FH501	1-533-233-21	HOLDER, FUSE			
FH502	1-533-233-21	HOLDER, FUSE			
FH507	1-533-233-21	HOLDER, FUSE			
FH508	1-533-233-21	HOLDER, FUSE			
FH509	1-533-233-21	HOLDER, FUSE			
FH510	1-533-233-21	HOLDER, FUSE			
		< RESISTOR >			
⚠R501	1-219-120-11	FUSIBLE	0.15	5%	1/4W F
⚠R502	1-219-119-81	FUSIBLE	0.1	5%	1/4W F
⚠R503	1-219-119-81	FUSIBLE	0.1	5%	1/4W F
⚠R504	1-219-120-11	FUSIBLE	0.15	5%	1/4W F
		< SWITCH >			
⚠S501	1-771-291-11	SWITCH, POWER (VOLTAGE SELECTOR)			
		< TRANSFORMER >			
⚠T501	1-431-828-11	TRANSFORMER, POWER			
**********					
*	A-4414-188-A	VIDEO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C102	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C103	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C104	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C201	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C202	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C203	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C301	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C302	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C303	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C304	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C305	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C306	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C310	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C311	1-216-295-91	SHORT	0		

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
C313	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C314	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C318	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C319	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C401	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C402	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C403	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C404	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C405	1-110-530-11	ELECT CHIP	1000uF	20%	6.3V
C406	1-110-530-11	ELECT CHIP	1000uF	20%	6.3V
C407	1-165-319-11	CERAMIC CHIP	0.1uF		50V (FORMER TYPE)(*NOTE)
C408	1-165-319-11	CERAMIC CHIP	0.1uF		50V (FORMER TYPE)(*NOTE)
C409	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C410	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C411	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C412	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C413	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C452	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C501	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C502	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C503	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C504	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C505	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C506	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C507	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C509	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C510	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C531	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C532	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C535	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C536	1-126-193-11	ELECT	1uF	20%	50V
C537	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C539	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C540	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C541	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C542	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C543	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C544	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C545	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C546	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C547	1-126-193-11	ELECT	1uF	20%	50V
C548	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C549	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C550	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C551	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C552	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C553	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C555	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C556	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C559	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C560	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C561	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C562	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C563	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C564	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C565	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C566	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C568	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C569	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C570	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C571	1-128-065-11	ELECT CHIP	68uF	20%	10V
C573	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C574	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C576	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C577	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
		< CONNECTOR >			
CN501	1-770-706-11	CONNECTOR, FFC/FPC 23P			
CN503	1-779-416-11	CONNECTOR,FFC(LIF(NON-ZIF))13P			
		< TRIMMER >			
CT503	1-141-539-11	CAP, ADJ 10PF			
		< DIODE >			
D301	8-719-054-23	DIODE RB706D-40-T146			
D501	8-719-422-12	DIODE MA8039			
D502	8-719-018-51	DIODE CL-170R-CD			
		< IC >			
IC101	8-759-701-39	IC NJM3404AM			
IC401	8-759-262-00	IC MC14576CF			
IC402	8-759-535-49	IC M38513M4-050FP (FORMER TYPE)(*NOTE)			
IC501	8-759-269-92	IC SN74HCU04ANS-E20			
IC502	8-759-549-26	IC M30620MC-305FP (NEW TYPE)(*NOTE)			
IC504	8-759-269-92	IC SN74HCU04ANS-E20			
IC505	8-759-535-48	IC CL680T-D1			
IC506	8-759-535-61	IC LC372100PM-H95			
IC507	8-759-342-01	IC MB814260-70PJER			
IC509	8-759-535-62	IC PCM1727E-2/T2			
		< JACK >			
J301	1-537-943-11	TERMINAL, S (S VIDEO OUT)			
J302	1-774-227-11	JACK, PIN 1P (VIDEO OUT)			
		< JUMPER RESISTOR >			
JW101	1-216-295-91	SHORT 0			
JW201	1-216-295-91	SHORT 0			
JW401	1-216-295-91	SHORT 0			
JW402	1-216-295-91	SHORT 0			
JW403	1-216-295-91	SHORT 0			
JW404	1-216-295-91	SHORT 0			
JW405	1-216-295-91	SHORT 0			
JW413	1-216-295-91	SHORT 0			
JW421	1-216-295-91	SHORT 0 (NEW TYPE)(*NOTE)			
JW422	1-216-295-91	SHORT 0 (NEW TYPE)(*NOTE)			
JW502	1-216-295-91	SHORT 0			
JW503	1-216-295-91	SHORT 0			
JW504	1-216-295-91	SHORT 0			
JW505	1-216-295-91	SHORT 0			
JW506	1-216-295-91	SHORT 0			
		< COIL >			
L301	1-410-372-21	INDUCTOR CHIP 1.8uH			
L302	1-410-372-21	INDUCTOR CHIP 1.8uH			

* Note
When replacing IC502, refer to "IC502 of Video Board" in "Service Note" (page 13).

VIDEO

Ref. No.	Part No.	Description			Remark
L501	1-216-296-91	SHORT	0		
L502	1-216-296-91	SHORT	0		
L503	1-216-296-91	SHORT	0		
L504	1-410-375-11	INDUCTOR CHIP	3.3uH		
L505	1-216-296-91	SHORT	0		
L506	1-216-296-91	SHORT	0		
L507	1-216-296-91	SHORT	0		
L508	1-216-296-91	SHORT	0		
L509	1-216-296-91	SHORT	0		
L510	1-216-296-91	SHORT	0		
		< TRANSISTOR >			
Q301	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q302	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q303	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q304	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q306	8-729-027-60	TRANSISTOR	DTC144TKA-T146		
Q307	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q308	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q310	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q453	8-729-216-22	TRANSISTOR	2SA1162-G		
Q454	8-729-216-22	TRANSISTOR	2SA1162-G		
Q502	8-729-024-91	TRANSISTOR	2SC2721-GL-TE85L		
Q531	8-729-140-75	TRANSISTOR	2SD999-CLCK		
		< RESISTOR >			
R101	1-216-073-00	METAL CHIP	10K	5%	1/10W
R102	1-208-441-61	RES,CHIP	1.5K	2%	1/10W
R103	1-208-441-61	RES,CHIP	1.5K	2%	1/10W
R105	1-216-295-91	SHORT	0		
R201	1-216-073-00	METAL CHIP	10K	5%	1/10W
R202	1-208-441-61	RES,CHIP	1.5K	2%	1/10W
R203	1-208-441-61	RES,CHIP	1.5K	2%	1/10W
R205	1-216-295-91	SHORT	0		
R301	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R302	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R305	1-216-049-91	RES,CHIP	1K	5%	1/10W
R306	1-216-073-00	METAL CHIP	10K	5%	1/10W
R307	1-216-049-91	RES,CHIP	1K	5%	1/10W
R308	1-216-049-91	RES,CHIP	1K	5%	1/10W
R309	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R312	1-216-073-00	METAL CHIP	10K	5%	1/10W
R313	1-216-049-91	RES,CHIP	1K	5%	1/10W
R314	1-216-049-91	RES,CHIP	1K	5%	1/10W
R315	1-216-047-91	RES,CHIP	820	5%	1/10W
R316	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W
R317	1-216-683-11	METAL CHIP	22K	0.5%	1/10W
R318	1-216-041-00	METAL CHIP	470	5%	1/10W
R319	1-216-049-91	RES,CHIP	1K	5%	1/10W
R320	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R321	1-216-049-91	RES,CHIP	1K	5%	1/10W
R324	1-216-022-00	METAL CHIP	75	5%	1/10W
R325	1-216-295-91	SHORT	0		
R327	1-216-049-91	RES,CHIP	1K	5%	1/10W
R328	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R329	1-216-649-11	METAL CHIP	820	0.5%	1/10W
R332	1-216-651-11	METAL CHIP	1K	0.5%	1/10W

Ref. No.	Part No.	Description			Remark
R333	1-216-046-00	METAL CHIP	750	5%	1/10W
R335	1-216-073-00	METAL CHIP	10K	5%	1/10W
R336	1-216-073-00	METAL CHIP	10K	5%	1/10W
R340	1-216-022-00	METAL CHIP	75	5%	1/10W
R341	1-216-121-91	RES,CHIP	1M	5%	1/10W
R342	1-216-022-00	METAL CHIP	75	5%	1/10W
R403	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R404	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R405	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R406	1-216-081-00	METAL CHIP	22K	5%	1/10W
R407	1-216-073-00	METAL CHIP	10K	5%	1/10W
R408	1-216-073-00	METAL CHIP	10K	5%	1/10W
R409	1-216-049-91	RES,CHIP	1K	5%	1/10W
R410	1-216-049-91	RES,CHIP	1K	5%	1/10W
R411	1-216-073-00	METAL CHIP	10K	5%	1/10W
R412	1-216-073-00	METAL CHIP	10K	5%	1/10W
R413	1-216-025-91	RES,CHIP	100	5%	1/10W (FORMER TYPE)(*NOTE)
R414	1-216-081-00	METAL CHIP	22K	5%	1/10W
R415	1-216-081-00	METAL CHIP	22K	5%	1/10W
R421	1-216-025-91	RES,CHIP	100	5%	1/10W (FORMER TYPE)(*NOTE)
R422	1-216-073-00	METAL CHIP	10K	5%	1/10W (FORMER TYPE)(*NOTE)
R423	1-216-073-00	METAL CHIP	10K	5%	1/10W
R424	1-216-073-00	METAL CHIP	10K	5%	1/10W
R425	1-216-073-00	METAL CHIP	10K	5%	1/10W
R426	1-216-073-00	METAL CHIP	10K	5%	1/10W
R457	1-216-025-91	RES,CHIP	100	5%	1/10W
R458	1-216-025-91	RES,CHIP	100	5%	1/10W
R459	1-216-025-91	RES,CHIP	100	5%	1/10W
R461	1-216-025-91	RES,CHIP	100	5%	1/10W
R462	1-216-025-91	RES,CHIP	100	5%	1/10W
R463	1-216-025-91	RES,CHIP	100	5%	1/10W
R464	1-216-025-91	RES,CHIP	100	5%	1/10W
R501	1-216-025-91	RES,CHIP	100	5%	1/10W
R502	1-216-025-91	RES,CHIP	100	5%	1/10W
R503	1-216-025-91	RES,CHIP	100	5%	1/10W
R504	1-216-025-91	RES,CHIP	100	5%	1/10W
R505	1-216-025-91	RES,CHIP	100	5%	1/10W
R506	1-216-025-91	RES,CHIP	100	5%	1/10W
R507	1-216-073-00	METAL CHIP	10K	5%	1/10W
R508	1-216-081-00	METAL CHIP	22K	5%	1/10W
R509	1-216-081-00	METAL CHIP	22K	5%	1/10W
R510	1-216-081-00	METAL CHIP	22K	5%	1/10W
R511	1-216-081-00	METAL CHIP	22K	5%	1/10W
R512	1-216-081-00	METAL CHIP	22K	5%	1/10W
R513	1-216-081-00	METAL CHIP	22K	5%	1/10W
R514	1-216-081-00	METAL CHIP	22K	5%	1/10W
R516	1-216-073-00	METAL CHIP	10K	5%	1/10W
R517	1-216-073-00	METAL CHIP	10K	5%	1/10W
R518	1-216-073-00	METAL CHIP	10K	5%	1/10W
R519	1-216-025-91	RES,CHIP	100	5%	1/10W
R520	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R523	1-216-013-00	METAL CHIP	33	5%	1/10W
R530	1-216-081-00	METAL CHIP	22K	5%	1/10W
R531	1-216-025-91	RES,CHIP	100	5%	1/10W
R532	1-216-025-91	RES,CHIP	100	5%	1/10W

* Note
When replacing IC502, refer to "IC502 of Video Board" in "Service Note" (page 13).

Ref. No.	Part No.	Description			Remark
R533	1-216-025-91	RES,CHIP	100	5%	1/10W
R534	1-216-073-00	METAL CHIP	10K	5%	1/10W
R535	1-216-073-00	METAL CHIP	10K	5%	1/10W
R536	1-216-033-00	METAL CHIP	220	5%	1/10W
R537	1-216-025-91	RES,CHIP	100	5%	1/10W
R538	1-216-073-00	METAL CHIP	10K	5%	1/10W
R542	1-216-049-91	RES,CHIP	1K	5%	1/10W
R543	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R544	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R545	1-216-025-91	RES,CHIP	100	5%	1/10W
R546	1-216-049-91	RES,CHIP	1K	5%	1/10W
R547	1-216-295-91	SHORT	0		
R548	1-216-049-91	RES,CHIP	1K	5%	1/10W
R549	1-216-025-91	RES,CHIP	100	5%	1/10W
R550	1-216-025-91	RES,CHIP	100	5%	1/10W
R551	1-216-025-91	RES,CHIP	100	5%	1/10W
R552	1-216-025-91	RES,CHIP	100	5%	1/10W
R554	1-216-025-91	RES,CHIP	100	5%	1/10W
R555	1-216-121-91	RES,CHIP	1M	5%	1/10W
R556	1-216-025-91	RES,CHIP	100	5%	1/10W
R557	1-216-025-91	RES,CHIP	100	5%	1/10W
R558	1-216-073-00	METAL CHIP	10K	5%	1/10W
R559	1-216-073-00	METAL CHIP	10K	5%	1/10W
R560	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R561	1-216-049-91	RES,CHIP	1K	5%	1/10W
R567	1-216-073-00	METAL CHIP	10K	5%	1/10W
R568	1-216-073-00	METAL CHIP	10K	5%	1/10W
R569	1-216-073-00	METAL CHIP	10K	5%	1/10W
R572	1-216-073-00	METAL CHIP	10K	5%	1/10W
R573	1-216-073-00	METAL CHIP	10K	5%	1/10W
R574	1-216-073-00	METAL CHIP	10K	5%	1/10W
R577	1-216-081-00	METAL CHIP	22K	5%	1/10W
R578	1-216-081-00	METAL CHIP	22K	5%	1/10W
R579	1-216-073-00	METAL CHIP	10K	5%	1/10W
R580	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< SWITCH >			
S501	1-571-395-11	SWITCH, SLIDE (SYSTEM SELECT)			
		< VIBRATOR >			
X401	1-767-261-21	VIBRATOR, CERAMIC (8MHz) (FORMER TYPE)(*NOTE)			
X501	1-767-510-11	VIBRATOR, CERAMIC (10MHz)			
X503	1-767-519-11	VIBRATOR, CRYSTAL (27MHz)			

****

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
6	1-693-421-11	TUNER (FM/AM)	
8	1-773-009-11	WIRE (FLAT TYPE) (15 CORE)(150mm)	
9	1-775-212-11	WIRE (FLAT TYPE) (23 CORE)	
10	1-690-589-31	WIRE (FLAT TYPE) (13 CORE)	
54	1-773-041-11	WIRE (FLAT TYPE) (17 CORE)	
⚠58	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)	
⚠58	1-569-008-21	ADAPTOR, CONVERSION 2P (SP,MY,EA,TW)	
⚠58	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
⚠59	1-558-943-41	CORD, POWER (IA)	
⚠59	1-575-651-21	CORD, POWER (SP,MY,EA,HK,TW)	
60	1-783-898-11	WIRE (FLAT TYPE) (15 CORE)	
121	1-769-972-11	WIRE (FLAT TYPE) (13 CORE)	
130	1-773-108-11	WIRE (FLAT TYPE) (19 CORE)	
257	1-452-879-11	MAGNET	
258	1-776-042-11	WIRE (FLAT TYPE) (8CORE)	
⚠301	8-820-020-02	OPTICAL PICK-UP BLOCK KSS-213D/Q-NP	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
HP101	A-2056-681-A	DECK (A) ASSY, HEAD (230AWR1)	
HP101	A-2056-683-A	DECK (A) ASSY, HEAD (230PWR1)	
HRPE101	A-2056-682-A	DECK (B) ASSY, HEAD (230AWR1)	
HRPE101	A-2056-684-A	DECK (B) ASSY, HEAD (230PWR1)	
M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
M901	1-763-048-21	FAN, D.C.	
ND601	1-517-731-21	INDICATOR TUBE, FLUORESCENT	
S811	1-473-335-11	ENCODER,ROTARY (BU,TRAY ADDRESS DET)	
⚠T501	1-431-828-11	TRANSFORMER, POWER	

****

		**********	
		HARDWARE LIST	
		**********	
#1	7-685-872-09	SCREW +BVTT 3X8 (S)	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#5	7-685-871-01	SCREW +BVTT 3X6 (S)	
#6	7-685-880-09	SCREW +BVTT 4X6 (S)	
#7	7-685-851-04	SCREW +BVTT 2X4 (S)	
#8	7-621-775-10	SCREW +B 2.6X4	
#9	7-621-255-15	SCREW +P 2X3	
#10	7-685-850-04	SCREW +BVTT 2X3 (S)	
#11	7-628-254-15	SCREW +PS 2.6X6	
#12	7-628-254-50	SCREW +PS 2.6X16	

* Note
When replacing IC502, refer to "IC502 of Video Board" in "Service Note" (page 13).

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-922-901-11

Sony Corporation
Home A&V Products Company

98F0924-1
Printed in Japan © 1998. 6
Published by Quality Assurance Dept.
(Shibaura)